HOOVER INSTITUTION ARCHIVES

Archival Media

BORIS T. PASH

BOX NO. 2

ACCESSION NO. 72033-8.19

Alsos Mission
General
History

2-8 Boris Pash

1-8 Bon's Pash [redacted] Alsos Mission

General

ALSOS MISSION

H I S T O R Y

INTRODUCTION

In its early stages there were few outward indications that World War II would witness entry into a new age in the art of waging warfare. The use of mobile, hard-hitting armor to spearhead the break through in France— The mass bomber raids aimed at knocking out the British nerve center of London— Such use of these weapons had been forseen by the military experts of the non-aggressor Allies. Their statesmen simply had failed to anticipate their early application by Germany. The mass air attack on Pearl Harbor, while using modern weapons, represented a tactical retrogression on the part of the Japanese warlords to the Dark Ages, in striking without declaration of war.

Early in 1943 certain developments in the research laboratories of the United States, particularily in the field of nuclear physics, indicated the possible development of new weapons, application of explosive power, previously unconceived, except by a small group of scientists, here, and in Europe. When the stages of development indicated a strong probability of success, and it was known that enemy scientists, particularily German, had available the same general technical principles-- it became vital to military planning to determine the extent to which the Germans had succeeded in their practical application. This intelligence was necessary to the successful prosecution of the war in developing countermeasures, slowing down possible enemy developments by bombing of research laboratories and war plants, obtaining positive scientific intelligence of value to our own war research

projects and in developing propaganda material that would mask Allied planning in parallel fields.

CONCEPTION OF ALSOS

The potential contributions of modern science to the waging of a new type of warfare confronted the War Department with a specialized intelligence problem. In recognition of this problem, the Assistant Chief of Staff, G-2, Major General George V. Strong, on the 25th of September, 1943, presented to the Chief of Staff, General of the Army George C. Marshall, a plan for the first American scientific intelligence mission. The memorandum setting forth the proposal for organization of the mission was concurred in by Dr. Vannevar Bush, Director of the Office of Scientific Research and Development, and by Major General L. R. Groves, Chief of the Manhattan Engineer District, developers of the Atom Bomb. This plan was approved for the Secretary of Wary, by the Deputy Chief of Staff, on the 29th of September. Cooperation of the Navy Department was offered on the 10th of November, in a communication from the Office of Secretary of the Navy Frank Knox, and Navy participation was accepted on the 16th of November. The mission thus became a unified scientific intelligence endeavor, representing both of the armed forces, and the national emergency civilian agency responsible for coordinating science and research in the war effort.

The importance of the objectives of the Scientific Intelligence Mission and the nature of its operations dictated that the most thorough security measures should be employed. In conforming to this policy, a code name, "ALSOS MISSION", was selected to facilitate communications and other normal identification of the organization.

EARLY ORGANIZATION FOR ITALY

In the transmutation of ALSOS from the early planning phases to an active organization, the first step necessary was the selection of a Chief of Mission. Qualifications considered essential for assignment to the Mission were good education, leadership, linguistic ability and broad experience in the intelligence field. Due to the highly classified nature of the Mission, counter intelligence factors, as well as the collection and evaluation of positive information, were taken into consideration in the selection of the mission head and other officer personnel. On the 26th of November, 1943, Lieut. Colonel Boris T. Pash, MI, was appointed as chief of mission. Colonel Pash had for the previous two years headed the Counter-Intelligence Branch of the Western Defense Command and Fourth Army. Prior to being ordered to active duty in July, 1940, he had been engaged in educational work on the Pacific Coast. The newly appointed mission head also possessed language qualifications and prior travel and educational experience in Europe.

Original plans for ALSOS called for a very small organization, engaged on a temporary duty basis, for an exploratory probing into the first captured enemy European territory in Italy. In addition to the chief of mission, a small operating staff was provided by the Army, and a group of military and civilian scientists from the War and Navy Departments and the Office of Scientific Research and Development. Selection of expert consultants and operating personnel was no easy task. In addition to the requirements of scientific knowledge, it was necessary to secure technicians who had some language qualifications, intelligence "curiosity" and the necessary physical stamina and tolerance of field hardships to put up with conditions in a theater of operations. In many instances, the men of science who were attached to ALSOS, surprised the military operating personnel

by their ability to "take it" under field conditions. Scientists initially assigned to the Mission for operations in the Mediterranean Theater included: Lt. Colonel William P. Allis, from the Army Service Forces; Lt. Commander Bruce S. Old, from the Navy, and Doctors John R. Johnson and James B. Fish, Office of Scientific Research and Development. Operating and administrating personnel additionally attached included Captain W. B. Stanard, Inf., as executive; two officer and two enlisted interpreters, and later, when the Mission reached the Mediterranean Theater, four Counter Intelligence Corps Agents.

FIRST MISSION TO ITALY

Mission personnel, traveling to the theater by air, assembled for their first operation, at Allied Force Headquarters, Algiers, on December 14, 1943. Letters setting forth ALSOS objectives, from the Secretary of War, the Assistant Chief of Staff, G-2, War Department, and the Coordinator of Research and Development, Navy Department, were carried by the Mission Chief. These communications were delivered to General Dwight D. Eisenhower, then commanding Allied Forces in the Mediterranean; Lt. General W. B. Smith, his Chief of Staff; Major General K.W.D. Strong, Assistant Chief of Staff, G-2, and Vice Admiral H. K. Hewitt, U.S.N., Commander in Chief, U. S. Navy, North African Waters.

First operating headquarters of the mission was established in Naples, Italy, 17 December 1943. Here, the four CIC agents were attached to ALSOS, and necessary operating equipment secured on loan from the Peninsular Base Section. A letter of introduction was secured from the Acting Head of The Provisional Italian Government, His Excellency Marshal P. Badoglio, which proved valuable in dealing with Italian officials.

The first active intelligence work of the Mission consisted of locating and interrogating such Italian scientists as had been made available by the occupation

of Southern Italy and Sicily. The ALSOS expert consultants were also able to assist other intelligence agencies in collecting and evaluating general scientific and technical information.

During approximately six weeks work in interrogating Italian scientists and in scrutinizing captured documents, it became evident that any possible information in Italy on German scientific developments in the higher priority fields, would be centered in Rome. Two plans were, therefore, considered, the first, to join the "G" Force being organized for possible fall of the Italian capital, and the second, to devise means of abducting certain key scientists from Rome and Northern Italy for questioning. Due to operational delays in entering Rome, and the doubtful success of the second plan, it was decided to return the Mission to the War Department, the latter part of February, 1944. Lt. Colonel Pash and his staff reported back in Washington, D. C., 28 February, to report on findings and conclusions reached up to that time.

Although the initial operation of ALSOS in the Mediterranean Theater did not reach its primary objective, Rome, the technical and scientific reports gathered in Southern Italy were examined by the War and Navy Departments, the Manhattan Engineer District and the Office of Scientific Research and Development as a basis for future operations of a scientific intelligence Mission.

PLANS FOR MISSION IN EUROPEAN THEATER

The sending of the first, small ALSOS group to Southern Italy represented a new undertaking in military intelligence history and its brief experience was experimental in nature. This pioneering effort served largely to demonstrate the great need for an intelligence collecting agency organized with highly specialized personnel, both operating and technical, in this new warfare of laboratories.

In this first operation it was revealed that the technical services, as such, had highly competent intelligence teams in the field. However, no other agency in the field was organized solely for the purpose of collecting scientific information. The dispatching of an independent scientific mission to a theater of operation, therefore, did not put a competitive collection agency in the field, in fact, it was early proved that besides gathering invaluable new information, ALSOS was able to act as a consultant in evaluating intelligence gathered by the technical services.

An early review of the reports brought back by ALSOS from Southern Italy resulted in a recommend tion on the part of Dr. Vannevar Bush, Director of the Office of Scientific Research and Development, Major General Groves of the Manhattan Engineer District, Major General S. G. Henry, Chief of the New Developments Division of the War Department, and Major General Clayton Bissell, Assistant Chief of Staff, G-2, War Department, that the Mission be organized on a permanent basis. This recommend tion received the approval of the Deputy Chief of Staff, for the Secretary of War, 4 April 1944.

With the way cleared for the permanent organization of the ALSOS Mission, Colonel C. P. Nicholas, GSC, Chief of Group I, Policy Staff, Military Intelligence Division, was named as War Department representative on the Mission's Advisory Committee. He was made responsible for the general supervision of the Mission. Despite a heavy work load, on the G-2 policy staff, Colonel Nicholas devoted a great deal of energy and enthusiasm to the furtherance of the Mission's objectives. When the ALSOS Advisory Committee was dissolved on 15 November 1945, Major General Bissell, A.C. of S., G-2, commended Colonel Nicholas, stating that "The Chief, MIS, has informed me that your assistance and fine spirit of cooperation has been of great value to the overall success of the Mission's operations".

The detailed plan for organization and operational procedure of the Mission was set forth in a memorandum for the Chief of Staff, submitted by The A. G. of S., G-2, 11 May 1944. This plan, approved by the Deputy Chief of Staff for the Secretary of War, provided for the establishment of the ALSOS Advisory Committee. In addition to the Military Intelligence Division representative, Dr. Alan T. Waterman, was named by Dr. Bush to represent the Office of Scientific Research and Development. The Office of Naval Intelligence and the Director of Intelligence, Army Service Forces, were also represented on the committee.

Preliminary plans for ALSOS operations in continental Europe in conjunction with the forthcoming invasion by the Allied Expeditionary Force, were completed in the Military Intelligence Service offices in the War Department during April and the first part of May, 1944. Lt. Colonel Pash started to rebuild his operational staff, with the addition of Major Richard C. Ham, Inf., who reported for duty 2 May 1944. Lieutenant R. C. Augustine, AC, a fluent German and French speaker, joined on 11 May 1944.

Colonel Pash arrived in London by air, the fourteenth of May, reporting to European Theater headquarters to make initial arrangements for the Mission's operations in Northern Europe. Carrying letters from the Honorable Henry Stimson, Secretary of War, and from Major General Bissell, A.C. of S., G-2, he reported to Lieutenant General W. Bedell Smith, General Eisenhower's Chief of Staff. Under the supervision of Major General Royal Lord, Theater Deputy Chief of Staff, preliminary arrangements were completed and the London ALSOS office opened at 20 Grosvenor Square, 15 May 1944.

In reorganizing ALSOS for the invasion of continental Europe, one of the most important steps taken was the appointment of a permanent scientific chief, Dr. Samuel A. Goudsmit, on leave from his peacetime post at the University of

Michigan, was released from his duties with the Radiation Laboratory, M.I.T. to head the scientific group. The new Scientific Chief, one of the country's outstanding theoretical physicists, assumed a position of extreme importance to the success of the Mission. He immediately took charge of assembling the scientific target data and the selection of competent expert consultants.

Having completed preliminary contacts in London, Lt. Colonel Pash returned to the War Department from London, the 22nd of May, to report on plans for exploitation of targets in the occupied countries and Germany. The Mission Chief returned to London on 30 May 1944, having arranged to secure additional officer personnel, through the War Department. ALSOS was attached to the office of Colonel G. Bryan Conrad, Assistant Chief of Staff, G-2, European Theater of Operations, U. S. Army, for administration. Entering the theater without authorized tables of allowances for personnel and equipment, the Chief of Mission found it difficult to secure even a bare minimum of manpower and supplies, even with the strong and enthusiastic support of the theater intelligence head. The Allies were busy manning and equipping their combat units for an all-important invasion. Mission directives, effective at this time, requested the theater to furnish personnel and equipment as needed. The highly classified nature of mission activities prevented dissemination of its importance to all but a very few high ranking officials in the theater. With this limitation, in addition to the pressing need of combat units for equipment, the securing of personnel and equipment provided one of the major problems confronting the operation of ALSOS in Northern Europe.

While Lt. Colonel Pash was completing operational plans in London, several officers requested for assignment to ALSOS, reported to the office of the Chief, MIS, War Department. Lt. Colonel George R. Eckman, MI, signed in on the 5th of August, for instructions, and proceeded to London by air, arriving in the British

capital on the 13th to act as London liaison officer. Formerly associated with Colonel Pash in counter-intelligence work on the Pacific Coast for three years, he later became Deputy Chief of the Mission when a European headquarters was established in Paris, France. Captain Howard J. Osborn was designated as ALSOS liaison officer in the War Department, on 7 August 1944. Captain R. W. Blake, Jr., an engineer officer with combat experience in North Africa and Italy, reported in as an operational officer, and Lieutenant William R. Rosenberger, CAC, a trained intelligence operative and German translator, was attached to the Mission for duty, and later assigned.

While pushing forward plans for Northern European operations, both in the War Department at Washington, D. C., and in London, the Mission Chief managed to make a hurried trip to the Mediterranean Theater for a target exploitation trip during the period 4 - 10 June 1944. Flying to Naples, Colonel Pash travelled on to Rome by jeep, accompanied by CIC Agent Baily. They arrived in the Italian capital shortly after the city fell and proceeded to investigate ALSOS targets of first priority. Three leading Italian scientists, listed as the top personnel targets, were secured and interrogated. While in Rome, the re-opening of a Mediterranean ALSOS office was arranged, and Major R. C. Ham departed Washington for Rome, via London and Naples, 8 June 1944, to take charge of the Rome office.

The activities of the Mediterranean Section were somewhat restricted due to to the lack of Scientific personnel available for dispatch to that area. Consequently Major Ham, assisted by CIC agents, particularly by special agent Ralph Cerame, and in addition to his administrative responsibilities, conducted investigations and interrogation in the Scientific fields. Though lacking entirely in Scientific background, Major Ham performed commendable work and sent to the Scientific chief some reports of considerable value. He was later joined by Major R. A. Fisher, AC, who headed up the scientific group for this area. Major

Fisher, a physicist on leave from Northwestern University, functioned as both an operational officer and expert consultant, with the Mission.

ALSOS OPERATIONS IN LIBERATED COUNTRIES

The initial successes of the Normandy beach landings failed to expose targets of primary interest to ALSOS. However, with the collapse of the German defenses in Normandy and Brittany early in August, the first Mission team landed on the French coast the 9th of August 1944.

Rennes, France, was reached late in the afternoon of 9 August 1944 by Lt. Colonel Pash and CIC Agent Gerald Beatson. The following morning the first institutional target, the University of Rennes, was entered and searched. Colonel Pash located two members of the faculty and secured documents indicating the nature of scientific activities in other universities of France, as well as several German physics and chemistry publications dated as late as March 1944. While on this trip, the Mission Chief also contacted Brig. General E. L. Sibert, AC of S., G-2, 12th Army Group, at which time arrangements were made for the attachment of an ALSOS team for entry into Paris.

PARIS OPERATION

The team organized for the purpose of joining the task force for entry into Paris was headed by Lt. Colonel Pash and included Major H. K. Calvert, FA, attached from the Manhattan Engineer District London liaison office, and CIC Agents Beatson and Leonard. The party crossed the channel by dispatch boat the 22nd of August and reached the 12th Army Group "T" Force headquarters near Rambouidlet the following day. When it became apparent on the 24th that the American forces were delayed by enemy resistance and that the first entry into Paris would probably be made from the southwest by elements of the French 2nd Armored Division, the ALSOS

party received authorization to cut across country and join the General LeClerc unit. Colonel Pash and his group reached the Porte d' Orleans, gateway to Paris, and entered the city at 0855 hours, 25 August 1945, being the first American unit to enter the liberated French capital.

Early entry into Paris was of prime importance to the Mission. There it was expected that the first top priority personnel target would be reached. Dr. Frederic Joliot-Curie, eminent French physicist and Noble prize winner, was expected to be able to furnish the first tangible clues as to German progress in application of atomic energy to warfare. Information had been obtained that Doctor Joliot might be found at his laboratory. Four times, during the day Colonel Pash and his party attempted to reach Joliot but were turned back by German tank and sniper fire. Finally, at 1640 hours, the laboratory was reached and Doctor Joliot discovered, unharmed, and joyous in greeting his American liberators. He readily agreed to cooperate in furnishing what preliminary information he had available and later returned to London with Major Calvert for further conference with American and British scientists.

The first scientific members of the mission reached Paris on the 27th of August, 1944, headed by Scientific Chief S. A. Goudsmit, and including Dr. T.H. Sherwood, Dr. Wallace R. Brode, Dr. William Noyes, Dr. Clarence N. Hickman and Dr. Hans H. Reese. Military expert consultants also arriving at the French capital were: Colonel Martin B. Chittick, CWS,; Colonel Emerick Kutschke, GSC; Lt. Colonel R. H. Ranger, SC; Lt. Colonel E. V. Foran, QMC;, and Captain William J. Cromartie, MC. Naval members of ALSOS arriving in Paris included: Captain H. A. Schade, USN, senior Naval representative on the Mission; Captain W. P. Roop, USN; Commander A. L. Mumma, USN, and Commander J. P. Denhartog, USNR.

With the arrival of the scientific advance group, Paris headquarters were established at 2 Place de L'Opera, 29 August 1944. Following receipt of ALSOS

progress reports, relating the successful entry into Paris and information obtained from Doctor Joliot and other early contacts, letters of commendation from the War Department were received by the Mission, both from Major General Clayton Bissell, AC of S., G-2, and Brig. General R. A. Osmun, Chief of the Military Intelligence Service.

BELGIAN TARGETS TAKEN

Progress to the north of Paris indicated the possibility of an early entry by British forces into Brussels, the Belgian capital, and Antwerp. An ALSOS advance unit, headed by Colonel Pash and including Lt. R. C. Augustine and three CIC agents, left Paris headquarters 6 September, 1944. Colonel G. Bryan Conrad, AC of S., G-2, Communications Zone, ETOUSA, accompanied the party in order to contact the British intelligence chief of the 21st Army Group and acquaint the Allied officer with the activities and authority of the ALSOS Mission. Due to the rapidly changing combat situation, 21st Army Group Headquarters was not located and the ALSOS advance party proceeded on to Brussels, entering the city late in the afternoon. As far as it can be ascertained, the ALSOS team established another first at Brussels--first American unit to reach the city after liberation.

Information had been furnished the Mission that a supply of critical material, used in the atomic bomb process, might be found in the vicinity of Antwerp. Colonel Strangeways, Commander of the British "R" Force at Brussels, was contacted and the necessity of reaching Antwerp, explained. As the road between the Belgian capital and Antwerp was still under sporadic enemy fire, the British commander furnished the ALSOS unit with a platoon of armored cars to act as an escort. The Belgian port was reached without incident, although scattered shellfire was being directed by the enemy at portions of the city. Belgian officials, with knowledge of the existence of the valuable material were contacted, and arrangements made to

visit the site, on the Albert Canal, west of Antwerp, at a later date, the unit returning to Antwerp. Arrangements were made at Brussels on the 8th of September to billet and ration ALSOS scientific investigators, following which Colonel Pash and his "spearhead" group returned to Paris. The first ALSOS scientific party, headed by Dr. S. A. Goudsmit, arrived in Brussels 8 September 1944.

A highly classified message was radioed from Paris to the War Department, for the Manhattan Engineer District, advising of the existence of the highly valuable material. Major General Groves dispatched Major R. R. Furman by air to Paris to assist in recovering the material.

The Mission Chief conferred with Lieut. General W. B. Smith, Chief of Staff, Supreme Headquarters, Allied Expeditionary Force with reference to recovering and removing the material. Additional operational plans were discussed with Major General Kenneth Strong (British), AC of S., G-2, SHAEF, following which General Strong radioed Brigadier Williams, AC of S., G-2, of General Montgomery's 21st Army Group, with instructions to cooperate with ALSOS in this operation.

Colonel Pash travelled from Paris to Brussels by jeep on the 19th of September 1944, accompanied by CIC Agents Gerald Beatson and Carl Fiebig. Arriving at British brigade headquarters near the warehouse in which it was reported that the critical material was stored, it was learned that the location was within 200 yards of the German lines. During the period 19 to 25 September, this area was searched four times during lulls in enemy fire. However, Colonel Pash and his two agents were subjected to sniper fire three times and on one occasion narrowly averted being hit by German mortar fire. The material was finally located on the 25th of September and a platoon of British Royal Engineers was placed at the disposal of the Mission for guard duty and subsequent removal for shipment to Great Britain and the United States, when combat conditions permitted.

In addition to the normal function of the Mission, the Chief of the Mission the the request of G-2, Commanding Zone, contacted the port engineer and secured the complete plans and specifications of the port and the extent of damage resulting from enemy action or allied bombing.

During the early period of operations in Belgium by ALSOS advance teams, scientific members were busy interviewing French scientists in Paris and Northern France, and Belgian scientists available in Brussels and vicinity. Between trips in search of the material, Colonel Pash and Agent Beatson made a hurried entry into Eindhoven, Holland, 21 September. There, a primary target, the important Phillips Works, was reconnoitered by Colonel Pash and arrangements made for the reception and billeting of investigative teams of the Combined Intelligence Objectives Sub-Committee.

VII Prelim fade into VIII
Tie up with IX

ALSOS "MAIN" ESTABLISHED

With the establishment of adequate communication and supply functions in Paris, a decision was reached to locate the permanent headquarters for the "duration" in the French capital. Personnel and records of the London administrative office reached Paris 20 September 1944 and were consolidated with the field office at 2 Place de L'Opera. As additional administrative, operational and investigative personnel joined the Mission it became apparent that limited office space with the Seine Base Section at the Place de L'Opera would have to be abandoned. Through the cooperation of Navy members of the Mission, the sixth floor of the U.S. Navy Headquarters for France was allocated to the Mission. The Army and scientific sections of the Mission were assigned approximately half of the space, the Navy members, occupying the remaining space. The new headquarters location proved very convenient, being located adjacent to the Etoile, at 9 Rue

Freetourg, within two blocks of Headquarters, Communications Zone, ETOUSA. Billets, in what proved to be the most comfortable hotel in Paris, The Royal Monceau, were obtained for officer and scientific personnel of the organization, within easy walking distance of the new ALSOS offices.

In order to further consolidate Mission activities for completion of exploitation of targets in the liberated countries and study of target data in Germany, a decision was arrived at, to close the Mediterranean Theater office at Rome, with Major Ham, Major Fisher, Lieut. Commander Gilfillan and Special Agent Ralph Cerame to proceed to Paris by way of Marseilles. The invasion of the south of France by the Seventh Army and other elements, later to become the Sixth Army Group commanded by General Jacob Devers, opened the way for investigation of ALSOS targets in that area. The Mission Mediterranean group arrived in Marseilles 2 October and continued operations in that area until 18 October.

SEARCH IN SOUTHERN FRANCE

VIII

While locating and securing for shipment the large quantity of valuable material in Northern Belgium, information was obtained that a considerable amount, approximately two carloads, had been shipped to the south of France at the time of the German invasion. Only fragmentary information as to the shipment was available. In addition, intelligence reports obtained through the French liaison section at the office of the AC of S., G-2, Communications Zone, indicated that the area south of the Loire River and extending to within fifty miles of Marseilles, had not been cleared of roving bands of German troops. Estimates placed the number of enemy personnel in the area as high as 60,000. Later, these troops were found to have concentrated in pockets around Western French seaports.

As no Allied troops had entered the area which Colonel Pash had determined must be searched; clearance was obtained for the operation through Lieut. General

W. B. Smith, SHAEF Chief of Staff, and Major General K. W. D. Strong, AC of S., G-2. The small party organized for this operational "invasion" of South-Central France departed Paris the 26th of September 1944. In additon to the Mission Chief, the group included Major R. R. Furman, Major J. E. Vance, who had recently joined the Mission as an additional expert consultant from the Manhattan Engineer District, Captain B. C. Augustine, T/4 Nicholas Dolida, and Special Agent Carl Fiebig.

Temporary headquarters were established in a chateau near Perigueux and the group split up into small parties for an intensive search of the area. Railroad officials were interviewed, shipping documents examined, and finally, through the assistance of a confidential informant, one of France's prominent mining engineers, a large part of the critical material was discovered at Toulouse. The Mission Chief immediately returned to Paris where arrangements were made for the use of a heavy truck company to proceed to Toulouse for removal of the material. It was again necessary to go to high authority to secure this cooperation, due to the high classification of the Mission objectives and limited "open" authority vested in ALSOS by War Department directives.

Colonel Pash led the truck convoy out of Paris, in his jeep, the 9th of October, headed for Toulouse. The searching parties of ALSOS had been the first small showing of American troops in the area since German occupation. The truck convoy was first U. S. Army column to enter the same area. With many bridges destroyed, the unit moved through detours previously pioneered by the ALSOS advance party. The critical material was secured and transported to Marseilles without unusual incident, placed aboard a U. S. Navy vessel, under the supervision of Major Ham, and shipped on to Boston, in charge of Captain Augustine, where it was delivered to Manhattan Engineer District officials.

The mission was able to furnish the Office of the AC of S., G-2, European Theater, a fairly accurate estimate of the situation in South-Central France on the

2-9 Books Read [redacted] Alison [redacted]

return of the ALSOS party to Paris, 15 October. The search mission had disclosed that the scattered parties of Germans had fled to the vicinity of the coastal areas of Western France. This informal report was but one of many made to other intelligence agencies in the theater as a result of information gathered incidental to the main objectives of the Mission.

Operations in Southern France were concluded with the final exploitation of targets along the Mediterranean coast by Major Ham and his team. Major Fisher, accompanied by Lieut. W. W. Ryan, Inf., conducted a special investigation for the Manhattan Engineer District during the period 25 November to 3 December, which officially ended activities in the area. Lieutenant Ryan, attached to the Mission from the Military Intelligence Service, European Theater, later was transferred permanently to the Mission, becoming headquarters commandant and staying with ALSOS until its inactivation in the theater.

IX

NEW LEADS DISCOVERED IN PARIS

The major part of the month of November, 1944, was spent in organizing target information for operations in Germany, the consolidation of all ALSOS activities at Paris, with Major Ham and party arriving in the Paris capital the 10th of November, and in conducting several small expeditions in the liberated areas.

Doctor Goudsmit and ALSOS CIC agents uncovered several interesting new leads in Paris during this period. Offices of the important German firm of Siemens and Halske and an undercover German scientific agency were discovered and entered. They were found just as the Germans had left them when they fled Paris, in August. No other Allied intelligence agency had searched these bureaus. Their investigation provided valuable lead for target exploitation of German institutions and laboratories. One document of extreme value to all intelligence agencies, a secret German teletype system directory, was uncovered.

As the result of intelligence information collected by Mission agents in Paris, Colonel Pash, accompanied by Agents Fiebig and Leonard, left on November 8,

1944, for a visit to Eupen, Belgium, near the German border. At Eupen the party located and seized the former German head of the Paris office of a leading German war material procurement agency, and his secretary. They were given preliminary interrogation in the Belgian town and then evacuated to Paris for further questioning.

STRASBOURG OPERATION IMPORTANT

Vittel to be included. FX

Intelligence gained from ALSOS activities in Paris and other liberated areas, including German documents setting forth the presence of certain key German scientists in Strasbourg, indicated that the Alsace capital might become the first highly important enemy-held ALSOS target likely to fall into the hands of our Armies. The intriseacies of gathering this information, provided an excellent example of the careful and important investigative work performed by the Mission.

One key scientist, a leading German theoretical physicist, was reported, through neutral sources, to be on the faculty of the University of Strasbourg. A French informant in Paris mentioned that a second imortant German research worker was probably at Strasbourg. Another thread was woven into the lead with fragmentary information obtained at the Phillips Laboratory at Eindhoven, Holland. Then the 1943 and 1944 catalogues of the University of Strasbourg were discovered by ALSOS agents in Paris. These documents revealed definitely that the first reported scientist was lecturing at Strasbourg, that the second professor was devoting full time to research, probably on an important war problem.

These catalogues proved of extreme value in planning the first major ALSOS Mission operation. The booklets revealed the presence of additional physicists and chemists at Strasbourg. In addition, the documents provided detailed target information that enabled perfection of all details of an important combat intelligence

operation, a listing of both the home and institutional addresses of the German scientists, a map of the University and a second map, of Strasbourg, with the German street names changed after Nazi occupation. Such information was not available from any other source.

The Mission had also obtained from other American and British intelligence agencies, all pertinent information collected and of interest to ALSOS, for this operational planning. However, when the intelligence was gathered together and a picture of the target area sketched out, it was disclosed that only the data collected and evaluated from ALSOS operations, was of actual value.

Planning for the Strasbourg entry was pushed ahead rapidly during the early part of November, 1944, when the tactical situation and Sixth Army Group combat committments indicated possible fall of the city before the end of the month. The Chief of Mission called on Colonel E. L. Harrison, AC of S., G-2, of the Sixth Group to acquaint him with the assigned task of ALSOS. The Army intelligence head directed his task force commander for Strasbourg to give first priority to ALSOS targets. This marked the beginning of a long period of splendid cooperation from all echelons of General Dever's command.

In addition to the high priority targets of interest to the atomic energy clients of the Mission, ALSOS target research had developed the probability that Dr. Eugene Haagen, German bacteriological warfare expert, might be captured at Strasbourg. The Navy section of ALSOS had an important target in this area, the Mathis Plant, reported to be doing secret work for Junkers. The National Advisory Committee for Aeronautics representatives also were highly interested in the Mathis target. Altogether, Strasbourg appeared to be an exceptionally important target for ALSOS.

The ALSOS advance unit for Strasbourg was originally alerted and ready to move out from Paris on the 22nd of November. The important coded message to join the

Strasbourg "T" Force was received on the 23rd. Colonel Pash and his operatives moved out of Paris early on the 24th, for the rendezvous point at Saarburg, moving on to Strasbourg the morning of the 25th. Intermitent dropping of German shells into the city for the next two days kept the Mission members dodging for cover, but no one was injured.

As a result of excellent early intelligence work and planning for target exploitation, key target areas were secured and placed under guard during the first two days in Strasbourg, despite sporadic shellfire and the attendant confusion. Initial searches failed to locate the German scientists but on intensification of the effort, seven University of Strasbourg physicists and chemists, all German citizens, were finally in custody by the evening of the 29th of November. They had abandoned their homes and laboratories in an attempt to escape the Allied advance but were forced into hiding and then capture when the forward elements of American and French troops made a surprisingly early entry into the city.

Several key German scientists received ample warning and succeeded in fleeing the city. However, they left behind them in their homes and laboratories documents which later proved of extreme value in determining scientific progress in aid of the Reich war effort. Doctor Eugene Haagen, primary bacteriological warfare target, also made good his get-away. But he also left behind clinical evidence in his laboratory and documentary evidence in his apartment, which gave the Bacteriological Warfare team their first good view of what to expect in German developments in their field.

Preliminary information from ALSOS seizures in Strasbourg were relayed to Paris headquarters of the Mission. Navy mission members, including Commander den Hartog, and Lieutenants Hart, Holmes and Biot, temporarily attached to ALSOS for the operation, arrived in the city 27 November and worked until the 2nd of December, on targets which included the torpedo work done at the Bugatti-Trippel plant near

Kolsheim and jet propulsion motor work at the Mathis plant of the Junkers organization. Dr. Samuel A. Goudsmit arrived on the 30th of November to take charge of preliminary interrogation of the captured physicists and chemists and to supervise removal of the more important documents. Captains Wm. Cromartie and Carlo Henze of the bacteriological warfare team arrived to take over investigation of the laboratory and documents of Doctor Haagen, and to look into a secret medical project formerly conducted for the Luftwaffe at nearby Natzweiler concentration camp. Evidence of the probable use of humans for medical experiments, extremely painful and often leading to death, was first uncovered at the Fort Francecki prison.

Captain W. P. Roop, USN, naval member of ALSOS, and Mr. Henry J. E. Reid, engineer in charge of the Langley Field laboratories of the National Advisory Committee on Aeronautics, attached as an aviation expert consultant with the Mission, arrived in Strasbourg the 9th of December and spent eight days making a study of jet motor developments at the Mathis plant, and other allied targets.

Results obtained from the Strasbourg operation were about the most important secured during the entire history of Mission operations. Little was learned from the personnel targets seized. Due to the desire for the utmost secrecy with reference to ALSOS interests in nuclear physics and practical application of atomic enery, interrogation had to be conducted most deftly and indirectly. However, the documentary evidence gave the Mission consultants the first concrete story of German progress in this high priority field. Not only were Doctory Goudsmit and his assistants able to guage German progress, but they were able to abstract identification of the Nazi scientists actively engaged in advance war research in this field, and their location in the organization. The scientific chief considered the intelligence secured in this field at Strasbourg much more important, factual and detailed than all other prior target information obtained by ALSOS operations, or from other intelligence agencies, American and British.

The ALSOS Mission received two more commendations from high War Department officials as a result of the success of the Strasbourg operation. Major General Clayton Bissell, AC of S., G-2, War Department, in commending the group for the Strasbourg operation in a letter to the Chief of Mission dated 22 March 1945, stated, "The continued success of the operations of the ALSOS Mission in the European Theater, together with the initiative and aggressive action displayed by Mission personnel, is a source of gratification to this Division. You and all members assigned or attached to the Mission are to be commended for your contribution to the overall success of ALSOS Mission o perations." Major General L. R. Groves, heading the nation's all important atomic bomb development addressed a memorandum to General Bissell in which he stated that, "We have recently completed an analysis of the voluminous records and other material collected by the ALSOS Mission in Strasbourg. This is the most complete dependable and factual information we have obtained bearing upon the nature and extent of the German effort in our field. Fortunately, it tends to confirm our conclusion that the Germans are now behind us".

Tie in with X

FIRST ALSOS ADVANCE BASE

With evidence pouring in from advance field teams of a wealth of scientific intelligence information available in Strasbourg and vicinity, the Mission Chief immediately set up temporary operating headquarters in the city on the 25th of November. This ALSOS base was established on the newly renamed Quai Kleber at what had been No. 10, Moscheroschenstaden. This location was made a permanent operating advance base on the 30th of November, and became the first of several comfortable ideally managed forward offices and quarters of the Mission. The downstairs level, formerly Strasbourg offices of the I. G. Farben Industries, was converted into an ALSOS field office. The upper floors, formerly the residence of Doctor Eugene Haagen and another tenant, were converted to living quarters. An ALSOS mess began

CONFIDENTIAL

functioning. Comfortable beds were made available for all, except on one or two occasions when overflow crowds were billeted, and they had cots and mattresses on which to unroll their bedding.

The organization and operation of the Strasbourg advance base established a precedent for superior living conditions for the scientists of ALSOS field teams. Although the Mission carried tentage from the opening phases of continental operations, in Normandy and Brittany, to the end of active conflict, and all personnel were equipped with bedrolls, the tents were never unrolled for, nor were the bedrolls ever spread on open ground by the scientists. ALSOS operational personnel not only got to their targets first and completely covered their intelligence assignments, but also saw to it that their expert consultants had the best available quarters and meals in the target areas.

With the exploitation of targets in the immediate Strasbourg area fairly well cleaned up after the first of the New Year and the Germans rolling up a counter-attack that threatened to again engulf Strasbourg, personnel, documents and equipment were withdrawn to Paris on 8 January 1945. After a month of investigative inactivity in the area, the advance base was opened in Strasbourg, again, on the 8th of February, to prepare for operations east of the Alsatian city.

Tie in with IX

WINTER IN PARIS

New target information collected at Strasbourg and additional leads furnished by investigations in other liberated areas furnished sufficient study material for operational planning to keep the major portion of the Mission personnel occupied in Paris during December, January and the first half of February. Lieut. Colonel Pash returned to the War Department by air to confer on future plans of the Mission and particularily to enter another strong plea for an established Table of Allowances for personnel and equipment. The Mission had managed, barely managed, to get

CONFIDENTIAL

to its earlier objectives by borrowing vehicles here and there through the good will established with theater agencies, and constant pleas addressed to them as the highly secret but important work of ALSOS. Dr. S. A. Goudsmit, scientific chief, returned to Washington, departing from Paris the 25th of December, to secure strengthening of the scientific side of the organization and to render a personal progress report, to date. The Mission Chief hurried his conferences in the War Department and was able to rejoin his personnel in Paris for Christmas. The "Battle of the Bulge" or the Ardennes campaign, the last desperate German counter-attack was achieving some success at the time and the holidays were spent in some planning for a quick evacuation by ALSOS, even of Paris headquarters, if necessary, but largely in getting ready for the strong Allied offensive in the early spring, which would take the Mission teams into Germany proper.

In January the superior work of two ALSOS CIC agents was recognised by theater authorities and Carl Fiebig and Ralph Cerame were given direct commissions as second Lieutenants. Then heartening news was received that a sub-allotment from the Military Intelligence Service, War Department of a personnel increase, had been approved. The same communication established a well-balanced table of equipment. During the lull before the final campaign to subdue Germany, the administrative and operating personnel were able to turn back to theater agencies borrowed equipment and draw on their newly authorized allowances. Several additional officers were assigned from theater organizations and additional commissioned personnel were dispatched by air from the War Department. Eight additional enlisted men were secured from theater replacement centers and the additional men needed to fill the new mission table of organization, were alloted from forces in the United States and sent to the Mission by surface transportation. It was not until the 5th of April, 1945, however that the Mission approached maximum assigned strength, with the reporting

of additional enlisted men from the United States to bring the total to seventeen commissioned officers and forty enlisted men. Actual peak strength, assigned, was reached 5 May 1945, with an increase to nineteen officers and forty-eight enlisted men.

COLOGNE-BONN OPERATION

41

During the December and January lull in ALSOS field operations, active liaison was maintained by visits of Mission officers to headquarters of the three Allied Army Groups, comprising General of the Army Eisenhower's striking force in Northern Europe. Close contact was kept with General Montgomery's 21st Group Headquarters at Brussels, General Bradley's 12th Group at Verdun and General Dever 6th Group at Vitel.

The second week of February, 1945, brought information from the 12th Army Group headquarters of an impending drive toward the Rhine in the Cologne-Bonn area Major R. A. Fisher was placed in charge of planning and conducting operations for ALSOS, in conjunction with the 12th Army Group "T" Force, for this movement. He departed from Paris the 22nd of February to submit targets to the task force commander at his headquarters near Liege. Lieut. Rosenberger accompanied him to the Belgian city, then was detailed to go forward to the German city of Aachen to establish an ALSOS advance base for this operation. A suitable large residence was located in the Laurensberg suburb of Aachen and supplies moved in, on the 25th of February. Lieut. Rosenberger and CIC agent Leonard were left at the new Northern Advance Base, to establish the usual excellent ALSOS mess and prepare for billeting comfortably the Mission operating and scientific personnel. The "willing Germans" gladly contributed necessary additional furniture, including ample beds and mattresses and Lieut. Rosenberger soon had an adequate supply of electric light, pota drinking water and other liquids ready for the early reporting in of ALSOS investi

gative teams. ALSOS was ready to "operate" in the Northwestern German areas.

Major Fisher returned to Paris the 27th of February to confer with the Mission Chief and Scientific head on final plans for the investigation of targets in the Cologne-Bonn region. Accompanied by Major Clark Bullock, a recent arrival from the War Department, Captain Blake and Lieut. Fiebig, Major Fisher returned t the Aachen base on 1 March. A working party of enlisted men also made the trip to be on hand to provide service for the scientific consultants.

As the Allied offensive toward the Rhine gained momentum, the 12th Army Gro "T" force moved its headquarters to Eschweiler, a few miles east of the ALSOS Northern Advance Base, on the 1st of March, 1945. Mission expert consultants che ed in there, from Paris, on the 2nd of the month, then proceeded to the ALSOS forw base at Laurensberg, for billeting and mess. Included in the party of scientists arriving in the North for the Rhineland operation were Dr. Walter Colby, Dr. James A. Lane, Dr. A. Allan Bates, Dr. T. Hogeness, Dr. Russell Robinson, Dr. Carl A. Baumann and Dr. Louis F. Fieser.

Combat operations in the Rhine-Ruhr area were proceeding satisfactorily. Secondary targets at Krefeld and Duren were exposed by our advance and investigativ teams dispatched, on the 4th and 5th of March. During the period of waiting for Cologne and Bonn to become available, consultants also went over documents of the Aachen Technische Hochschule.

German resistance on the west bank of the Rhine suddenly collapsed completely on the 6th of March. Colonel Pash and Major Fisher drove into Cologne the morning of the 7th, to find the "T" Force newly entered and preparing to establish a head-quarters on the outskirts of the City. A message was received from headquarters of the leading division at noon, stating that Cologne had been cleared to the river, except for two small pockets. Major Fisher immedi tely returned to the ALSOS base at Aachen for the purpose of bringing up investigative teams.

During the period, 8 - 9 March, ALSOS investigators exploited targets at the University of Cologne and visited homes of personnel objectives. The entire city was badly damaged, the major portion of the targets, piles of rubble. However, a large number of documents were recovered, though all important personnel targets had fled across the Rhine, with the retreating Germans. The bacteriological warfare team of Captains Cromartie and Henze arrived in Cologne on the 8th and immediately went to work on their targets. They had been exploiting additional leads out of the Strasbourg advance base and made the long trip by jeep, after a brief stop in Paris.

While investigative teams were cleaning up target data in Cologne, word was received of the availability of the university town of Bonn, for intelligence exploitation, the afternoon of 8 March. Two teams were held in readiness for Bonn activities but the city actually did not become available for entry by investigators until 10 March. A number of interesting documents were secured at Bonn and several personnel targets interrogated. Exploitation of these targets continued until 12 March when part of the investigative group started back to Paris with a load of German documents. Major activities were completed by the 13th of March and operating personnel withdrew to the Aachen ALSOS Base, while all but two expert consultants returned to Paris headquarters.

Information secured in the Cologne-Bonn area, though fragmentary, served to confirm the large amount of positive intelligence gathered earlier in Strasbourg, particularly in the highly important fields of practical application of atomic energy and bacteriological warfare. A few small details were added to the picture. Additional locations of important scientists and laboratories, east of the Rhine, were obtained and others verified. A limited amount of information was obtained on German research and development in metallurgy, aeronautics and chemistry.

With the Germans driven across the lower Rhine, it became evident that the er Westwall would collapse and the upper Rhine would be cleared in the last weeks of March, as well. Targets preparations were pushed forward, at Paris Mission Headqua ters for the next important Rhineland city on the list, Ludwigshaven. Plans were coordinated with the task force of the Sixth Army Group.

Colonel Pash led the ALSOS "spearhead" group into Ludwigshaven on the 22nd of March while the city was still under German shellfire and the enemy were holding th bridgehead on the west side of the Rhine, to protect their retreat. The ALSOS part proceeded at once to the hugh I. G. Farben Industries plant, and secured guards for this important target from the combat team of the armored unit driving through the city toward the Rhine. This major war plant was held by the ALSOS team and attache guards until the "T" Force moved in the next day to take over. ALSOS scientists started a general survey of the plant laboratories and offices on the 23rd of March and had matters well organized when the large party of Combined Intelligence Objectives Sub-Committee arrived to conduct a full investigation of general targets. Ther was little additional to be learned in the high priority fields of ALSOS.

XII

HEIDELBERG BASE ESTABLISHED

The crossing of the Rhine was delayed for the ALSOS advance elements until the 29th of March. All bridges had been destroyed by the retreating Germans. Finally, on the morning of the 29th, Colonel Pash and his operations team crossed the river at Worms, on the first hastily constructed pontoon bridge on the upper Rhine, The "spearhead" outfit then turned South and entered Mannheim shortly before noon. A short survey of what secondary targets ALSOS had listed in Mannheim revealed almost total destruction by shellfire and aerial bombing.

Contact was again established with the task force of the Sixth Army Group, at Mannheim, where it was learned that one possible avenue of approach to Heidelberg

might be cleared. This involved a complicated series of detours as the main roads still held by enemy detachments. Colonel Pash decided to risk the dash to Heidelbe due to the high priority targets in the famous old German university town. Heidelb was reached late on the afternoon of the 29th, where it was learned that an Americ infantry battalion had secured the main part of the town.

After reaching the center of Heidelberg, the ALSOS advance party proceeded immediately to the Kaiser Wilhelm Institute. Because of the extreme importance of this target, two expert consultants of the Mission accompanied the advance party, Dr. T. Hogeness, scientist with the Manhattan Engineer District, and Engineer Fred A. C. Wardenburg, loaned to the Mission by the Dupont Company. Ordinarily The Standard Mission practice was to delay bringing up scientific members of the Missio until targets were secured and deemed safe from enemy fire. The Mission advance gr spent the night at the Institute and expert consultants started examining laborator equipment and documents the following morning.

A new ALSOS advance base was established at Heidelberg on the 30th of March. An operating headquarters was set up in a large country residence three miles up the Neckar River from the center of the city. Three additional large residences were requisitioned in the university district of the city for the administrative section of the advance base, and to quarter expert consultants, officers and enlisted men. The Mission advance office was opened on the main floor of the beautiful residence, situated in a garden on the hillside overlooking the Neckar River. This residence, at 16 Philosophenweg, was owned by a leading Nazi Party supporter. A nearby restaurant and beer garden was taken over for a central ALSOS mess. From its establishment the last of March, until the Heidelberg base was closed on the last day of September, 1945, the organization's haven in the old German Rhineland university town proved to be the focal point in Mission activities. With attached American personnel

U. S. Navy visitors, members of the British, Dutch and Norwegian armed forces attac from time to time, for special operations, ALSOS Heidelberg billet and mess facilit at peak periods, took care of in excess of one hundred persons. Average strength d ing the period was sixty officers, scientists and enlisted men.

Shortly after reaching Heidelberg, the ALSOS armor finally reached the Missio Working with forward elements a number of times and exposed to enemy small arms fir and shellfire, the "spearhead" group had come through, thus far, without a casualty Learning of the exposure to which the advance ALSOS elements had been subjected, Colonel S. A. Daniels, a theater ordnance officer, finally secured the loan of two M-20, light armored vehicles for the Mission, the first of April, 1945.

PARIS HEADQUARTERS MOVED

Continued growth of the Mission during the early spring months of 1945, forced planning for a move of the main headquarters at Paris, to a more spacious location. A modern, three story residence building in the Paris suburb of Neuilly-Sur-Seine, situated at 124 Boulevard Bineau, was secured and offices moved on 10 April. This proved to be the last move for the Mission headquarters. ALSOS quarters for officer and expert consultants continued to be maintained at the Hotel Royal Monceau, as the new headquarters was located approximately two miles from the Arc de Triomphe, and the billet.

NEW BASE AT GOTTINGEN

XIII

German defenses along the lower Rhine were collapsing as ALSOS units crossed the upper Rhine behind the advance elements to enter Mannheim and Heidelberg. From the Northern Advance Base near Aachen, Lieut. Rosenberger and an attached CIC special agent, moved east, crossing the Rhine and entering the major city of Franfurt-am-Main the first of April, 1945. However, heavy enemy fire forced a temporary with-drawl with an investigative party, including Dr. James A. Lane, Mr. F.A.C. Wardenburg

Alsos Mission
General

2-9 Bon's Pash

and Dr. A. Allan Bates, returning for target exploitation, the third of April. Heavy damage to the city with consequent withdrawal of personnel and documents resulted in only minor information being obtained in Franfurt.

With targets becoming increasingly available along the lower Rhine and Ruhr areas, Major Fisher was sent from Paris headquarters, 9 April 1945, to take charge of operations in that area. Major Fisher organized a party at the Aachen advance base including Major Bullock, Lieut. Rosenberger, CIC Agents Leonard and Hicks and Pvt. Bishop to cross the Rhine in an attempt to reach the important university center of Gottingen. This group, with the addition of expert consultants, Dr. Walter Colby and Dr. Charles F. Smyth, proceeded as far as Marburg on the 10th of April. Lieut. Carl Kunisch was left in charge of the Aachen base.

The ALSOS party arrived at Göttingen at noon on the 12th of April. Doctor Telchow, Chief of the Kaiser-Wilhelm Gesellschaft, who had fled from Berlin, was located and interrogated. It was then learned that the important records of his institution were available at Göttingen, having been evacuated from Berlin. Other important German scientists and research workers were located in Göttingen.

The new ALSOS Northern Advance Base at Göttingen was established in two large residences on the outskirts of town, 11 April 1945. Adequate and comfortable sleeping quarters were set up and an ALSOS mess established. With early investigative activity in the vicinity indicating considerable valuable material, the decision was reached to move all northern operating and investigative personnel to this new location. The Aachen base was closed on the 20th of April and personnel and equipment consolidated at Göttingen.

OSENBERG CAPTURE

XIII

The development of ALSOS target intelligence had indicated that one of the top objectives in Germany would be the personnel and records of the planning office of

the Reichsforschungsrat, the Nazi counterpart of our Office of Scientific Research and Development. The latest information, gained from interrogation of Germans and documentary examination, revealed that the organization's records and personnel had been evacuated to the village of Lindau, near the town of Nordheim. Questioning of Dr. Telchow, Director of the Kaiser-Wilhelm Gesellschaft, at Göttingen, the afternoon of 11 April, confirmed this intelligence.

An inquiry to the combat headquarters controlling troops in the area, resulted in a decision to delay an attempt to reach Lindau until the morning of 12 April 1945. Major Fisher, Lieut. Rosenberger and CIC Agent Hicks arrived in a jeep at Lindau at 1000, on the 12th of April. A German civilian conducted the group directly to the temporary Reichsforschungsrat offices. Agent Hicks was posted as a guard at the main entrance and Major Fisher and Lieut. Rosenberger were conducted to the office of Professor Werner Osenberg, Chief of the Planning Board of the Reichsforschungsrat. A preliminary interrogation of Osenberg and a brief examination of the secret files of the organization revealed that Major Fisher and his assistants had made one of the most important intelligences captures of the war.

With Osenberg/was secured the major portion of his scientific and secretarial staff, and all of the key records disclosing the locations, personnel, budgets and progress of the major scientific and war research activities of the Germans. Due to the large number of personnel and bulk of documents, taken with Osenberg, and the apparent cooperative attitude of the German scientific leader, Major Fisher decided to hold the organization at Lindau in order to make the wealth of material available to ALSOS and other investigators, in an orderly manner.

Doctor Osenberg had reported to Major Fisher that two staff members of his organization had disappeared during the proceeding night and would probably attempt to return with "SS" representatives to destroy secret documents and possibly commit re-

prisals against persons remaining behind. It was considered necessary for security reasons to remove a small number of key files. These were taken to the Göttingen office of ALSOS by Major Fisher at noon on 12 April.

Lieut. Rosenberger and the CIC Agents were posted as a provisional security guard at the Osenberg offices pending arrangements for a regular guard detail. On the afternoon of the 12th of April, Doctors Colby, Fieser and Smyth of the Mission scientific staff, were brought from Göttingen to Lindau for purposes of interrogation of personnel, and document search. Lieut. Rosenberger and his two assistants remained on guard at Lindau that night.

Advised by Major Fisher of the importance of his capture at Lindau, the Commanding Officer of the 997th FA Battalion assigned a guard detail of eighteen men, under command of Capt. Vunk. Communication facilities being inadequate, Major Fisher drove from Goettingen to First Army Headquarters at Marburg on the afternoon of the 13th to report to the Lindau discovery through Army channels. Representatives of the Navy Technical Mission for Europe, the Combined Intelligence Objectives Sub-Committee, 12th Army Group and Supreme Headquarters, Allied Expeditionary Force were notified of the discovery of the Osenberg installation. It was recommended that representatives of these agencies be sent to Lindau and ALSOS assistance was offered in regard to their work at Lindau.

Additional scientific consultants and investigators of the Mission arrived at the Göttingen base during the next few days to assist in the exploitation of the Osenberg organization. They included Major Adam, British member of the bacteriological warfare team, and Lieut. Jesse W. Hoffer, USNR, Navy representative on the same unit; Dr. Louis Fieser, chemistry expert from Harvard; Dr. Russell Robinson of MAGA; Dr. A. Allan Bates, metallurgist, and Colonel Sir Charles Hambro, Lt. Colonel John Lansdale, Jr., Major K. H. Calvert and Major David Cattiger, British and

American representatives of the atomic bomb developers.

Dr. Victor Frankel and Major Blount of the Scientific Intelligence Advisory Section, G-2, Supreme Headquarters, arrived in Göttingen Sunday, 15 April, for the purpose of visiting the Osenberg installation. Later it was learned that Doctor Frankel had recommended removal of Osenberg personnel and documents by SHAEF to the vicinity of Paris. This removal was made against the advise of the ALSOS members of the Advisory Section, Dr. Goudsmit, as it was felt that a more accurate picture of the Reichsforschungsrat could be obtained at Lindau, and, furthermore, the personnel were cooperating splendidly in the investigation. It had been learned by ALSOS that Professor Osenberg had been directed to destroy his essential files and records by the "SS" before the German armed forces retired, and had failed to comply. With the removal of the Osenberg personnel and material from Lindau, investigation was necessarily halted at the time. Later, this work was resumed at St. Germain but under very unfavorable conditions as the documents had been placed out of orderly array in their removal and the cooperation of the personnel failed to reach the same degree as at Lindau.

STADTILM OPERATION

XIV

The investigation of what proved to be one of the most important ALSOS targets in the field of nuclear physics and atomic energy at Stadtilm, Thuringia, illustrated the excellent intelligence operative functioning of the Mission. This activity took place during the period 11 to 15 of April, 1945.

During the course of the examination of documents at the University of Bonn, March 11, a few papers of doubtful value were recovered by Mission consultants and sent back to Paris headquarters. A careful study of these papers, however, revealed one possibly important clue to the evacuation address of a vital German war research activity. In some German correspondence it was stated that a leading scientist was now

living in the small town of Stadtilm. Previous documents recovered by ALSOS indicated that this person was probably connected with Nazi war research work in the field of atomic energy. Interrogations of colleges of this physicist, Doctor Diebner, at Heidelberg, confirmed this knowledge.

When the information from Bonn was coordinated with intelligence from Heidelberg at Paris headquarters by the Scientific Chief, the extreme importance of Stadtilm in the hunt for German atomic energy installations and scientists dictated immediate action. Dr. Dave Griggs, Harvard geo-physicist on leave to serve as scientific adviser to General Carl Spaatz, Commander of U. S. Air Forces in Europe, had entered on a period of temporary duty with ALSOS. Doctor Griggs, a licensed pilot, volunteered to fly his plane to Heidelberg to alert Colonel Pash and operating personnel of this important objective. He landed near Heidelberg the afternoon of 10 April.

On the morning of 11 April Colonel Pash left Heidelberg for Stadtilm accompained by Dr. Griggs, Dr. Lane, Mr. Wardenburg, three CIC Agents and four enlisted men. They reached Stadtilm less than an hour after German troops evacuated the town, to discover that the Gestapo had evacuated the two important subjects, Doctors Diebner and Gerlach the night before. These two war research workers were later picked up by Major Ham in Munich.

Although the Gestapo had managed to clear the two personnel targets out of Stadtilm, additional research workers were rounded up and many important documents seized. The installation turned out to be the atomic energy experimental laboratories and office headquarters of Germany Army Ordnance. Because of the high importance of this find, Doctor Griggs returned to Paris to fly Scientific Chief Goudsmit back to Stadtilm. Representatives of the joint British-American group on atomic energy in London were advised and Wing Commander Cecil, RAF, and

Commander Welch, RNR, and Major R. R. Furman of the Manhattan Engineer District, arrived by plane to observe the investigation.

The Gestapo managed to evacuate a large supply of highly valuable material at the time they assisted Doctors Diebner and Gerlach to escape. Later this material was recovered from its hiding place in the Bavarian mountains. During the entire Mission operations material with an estimated value in excess of two million dollars, was recovered, but this physical gain was greatly outvalued by the important intelligence obtained by the Mission in its contribution to the Allied war effort.

NORTH CENTRAL GERMANY

From the new ALSOS Northern Advance Base at Göttingen a number of other important investigations were conducted in addition to the Osenberg project. Investigative units visited targets in Giessen, Marburg, Brunswick, Weimar, Magdeburg, Clausthal, Celle, Hannover and smaller communities in the area.

At least two of these side trips proved to be of considerable intelligence value. Major Fisher, Doctor Colby and Doctor Smyth left the Göttingen base on the 17th of April for the town of Celle, to the North and in British occupied territory. There they interrogated a scientist of importance in the field of atomic energy research. The information gained form him, again confirmed the intelligence gathered in the early Strasbourg operation, that the Germans were far behind us in this work. Valuable equipment at the Celle laboratories was also examined and arrangements made for its shipment to Great Britain.

A small expedition, including Doctors Fieser and Robinson, CIC Lieutenants Alsdorf and Reeves, and Agent Hicks departed from Göttingen with the Brunswick (Braunschweig) area target list. They made an important contact near Brunswick for the aeronautics experts when they located the former research center of the Luftwaffe. This institution proved of extreme interest to the National Advisory Committee on Aeronautics representatives with ALSOS, Dr. Russell Robinson, Dr.

~~CONFIDENTIAL~~

Carlton Kemper and Dr. John W. Ehert. Important aviation documents also had been recovered from their hiding place in a deep well near Göttingen, which proved of great value after a long drying process.

XV Corps

SOUTHWEST GERMANY

Principal interest in ALSOS operations shifted back to the Southern Advance Base at Heidelberg during the latter part of April as plans were made for a major and highly important move into Southwest Germany. Reliable, confirmed information already obtained in ALSOS operations clearly indicated that the remaining key scientists engaged in war research work, particularly on atomic energy, would be found in that area unless they escaped eastward into Bavaria, or southeast, into the German and Austrian Alps.

The Southwest Germany operation was the most elaborately planned, heavily staffed and carefully executed mission of ALSOS activities in the European Theater. Target data was compiled and studied for a month before the movement took place. Aerial photographs, town plans, terrain features and documentary evidence were studied in great detail.

Due to the importance of this operation, Lieut. General W. B. Smith, chief of staff to General of the Army Dwight D. Eisenhower, was again consulted by Colonel Pash. It was directed that this operation be coordinated through the Sixth Army Group. The Mission Chief conferred with General Devers, Sixth Group commander; Lieut. General Alexander Patch, commanding general of the Seventh Army; Brigadier General E. L. Harrison, G-2, Sixth Group; Brigadier General Jenkins, G-3, Sixth Group, and Colonel Quinn, G-2, Seventh Army.

For the purpose of this operation, Colonel Pash was attached to Headquarters, Sixth Army Group, and designated commanding officer, special task force.

~~CONFIDENTIAL~~

Based on ALSOS operational plans, submitted to Headquarters, Sixth Army Group, orders were issued for a combined air and ground operation for this mission, by elements of the Seventh Army and Thirteenth Airborne Division, First Allied Airborne Army.

Radical changes in the tactical situation by the 20th of April, forced changes in operational plans, including elimination of the necessity for an "air drop". On the 21st of April Colonel Pash moved his ALSOS "Lightening A" advance unit into camp near Freudenstadt. This ALSOS outfit included 14 U. S. officers, 7 British officers, 5 expert consultants, 8 counter-intelligence special agents and 15 ALSOS enlisted men. The 1269 Combat Engineer Battalion, less Company B, was attached to the Mission for the operation.

This special task force moved out the 22nd of April, crossing the Neckar River at the Horb bridgehead, into Wurtenberg. During the next few days the towns of Haigerloch, Hechingen, Bisingen, Thenhein and Tailfingen were taken and intelligence targets, personnel, documentary and institutional seized. Scattered enemy resistance was encountered all along the route but at only one point was the Mission delayed for any length of time by German fire.

After crossing the river on the first day of this operation, one small town was taken without opposition. Entry was also attempted into a second town, on the 22nd, but due to the presence of the enemy in strength a withdrawal was made. During this engagement the ALSOS force inflicted a number of casualties and took eight prisoners, but themselves failed to receive a hit.

On the morning of 23 April the ALSOS special force moved in another direction, occupied a second objective and secured twenty-five scientists and technicians and secured seven building targets.

The evening of 23 April a unit consisting of one company of combat engineers

and the two ALSOS armored cars took a third town in which important targets were listed. After a brief engagement with a strong enemy force based in a town one mile away, the ALSOS force withdrew to its base. The Burgomaster of the town tried to incite the Volksturm against the task force. He was taken prisoner, his assistant shot.

On the 24th of April it was decided to take the town from which so much resistance had been offered. An assault team of a company of combat engineers and the armored unit of the Mission moved to within a mile of the objective. Contact was established with the commanding officer of the enemy unit and he agreed to surrender. At 1423 hours Colonel Pash, accompanied by Brig. General Harrison, G-2, Sixth Army Group, entered the town and accepted its surrender. This opened the way for a movement through a mountain pass toward a fourth objective. Another town was secured the following day, the other side of the pass, together with several important targets.

While the combat phases of this operation ended the 25th of April, intelligence investigations continued in the area until the 29th. Complete intelligence was obtained from both known targets and targets of opportunity. Previous ALSOS Mission intelligence indicated that four important laboratories had been evacuated ot the Hohenzollern area towns of Haigerloch, Hechingen, Bisingen and Tailfingen. These laboratories were found to possess key secret documents, equipment and materials of special interest, and to be staffed by the outstanding German scientists in the field of atomic energy research. The targets were found as earlier ALSOS intelligence indicated. One important personnel target had left for Munich two weeks prior to the operation. ALSOS investigators succeeded in learning the hiding places of critical material and of secret documents which had been allegedly burned. Six important scientists were held and evacuated to Paris where they were turned over to representatives of the Manhattan Engineer District. For the success

of this ALSOS operation, General Devers recommended Colonel Pash for the award of the Legion of Merit. This award was later approved by the War Department.

XVI Prop

BAVARIAN OPERATIONS

The completion of ALSOS operations in Southwest Germany found the Mission in possession of all but three important scientific personnel targets. Information obtained indicated that they might be found in either Munich or in the Urfeld area of the Bavarian Alps. For the purpose of this "mopping up" operation, two operational teams were formed on 30 April 1945, at Heidelberg. Major Ham was given the assignment of proceeding to Munich, while Colonel Pash took charge of the Alpine team. Both parties moved out from Heidelberg at 0700, 1 May.

Colonel Pash and party left in two armored cars and two jeeps. He was accompanied by Lieutenants Edell, Brown and Fiebig, Special Agent Beatson and eight enlisted men. The unit reached the Walchensee area of the upper Bavarian Alps on the 2 May 1945. Contact was made with the 36th Reconnaissance platoon of the 36th Division. This organization had been assigned the task of reconnoitering the Walchensee area. They reported that a bridge leading to the only approach to Urfeld had been destroyed and no vehicles could approach the town.

Lieut. Frank Anderson, commander of the Recon. Platoon, attached a ten-man patrol to the ALSOS team and they proceeded on foot over the mountain side into Urfeld. The town was entered at 1630 hours but at 1745 hours a small force of Germans attempted to come into the town. In the ensuing engagement the enemy lost two men killed, three wounded and fifteen prisoners. At 1800 hours the patrol of the reconnaissance unit withdrew to their base near Kochel. Five German officers entered the town at approximately 1900 hours to discuss terms of surrender of a force of about 700 men, stationed in the surrounding mountains.

Realizing that to stay in Urfeld with the small ALSOS unit might jeopardize the execution of the mission and its security, Colonel Pash succeeded in bluffing the German officers by indicating that he had large reserves waiting in the mountain pass, and as soon as the Nazi officers left the town, he withdrew his personnel to its starting point near Kochel.

The following morning, May 3rd, with the bridge repaired, the ALSOS unit moved back into Urfeld in their vehicles, accompanied by the 36th Reconnaissance Platoon. The important scientific personnel target of the unit was taken, and returned to the Heidelberg base of the Mission on the 4th of May.

ALSOS members of Major Ham's Munich team entered the Bavarian city on 1 May 1945. He was accompanied by Captain Augustine, Captain Matting, Lt. Ditesheim, Lt. Toepel, four CIC agents and three enlisted drivers of the ALSOS operational group. Expert consultants making this trip included members of the bacteriological warfare team, Major Barnes, British, and Captain Cromartie and Doctor Carl Baumann.

Major Ham and party located the home of their first target, Doctor Gerlach, a leading German physicist and war research director. As the German scientist was not at home, they proceeded to the University of Munich where he was located in the basement offices of the physics laboratory. In security checking the residence of Dr. Gerlach, a Luftwaffe major was discovered. He was made a prisoner of war and turned over to the 45th Division enclosure at Munich.

From the interrogation of Doctor Gerlach, it was learned that the second important Munich personnel target might be located at Schongeising, approximately 20 miles southeast of Munich. He was apprehended on the afternoon of

2 May and removed to Munich. The following day, Doctors Gerlach and Diebner, together with valuable documents, were evacuated to the Heidelberg advance base by Major Ham, Lieut. Toepel and two enlisted assistants, where they were joined by Dr. Heisenberg, on 4 May, the latter having been taken at Urfeld by Colonel Pash and the Alpine Unit. Major Barnes and Captain Cronartie located their primary EW target on May 5, in a small town near Munich and evacuated him to Heidelberg on the 6th. On May 7, a small unit consisting of Captain Matting, Doctors Robinson and Kemper and an enlisted driver departed Munich to exploit aeronautical targets in the Salzburg area.

The Munich operation was a rapid and successful one. Personnel and documentary targets of primary interest to the Mission were secured, without exception and returned to the operating base at Heidelberg. The temporary headquarters which Major Ham had opened in a large residence in Munich, was closed on 7 May 1945, since it was decided that further exploitation of targets in the area could be mounted from Heidelberg.

NORTHERN BASE ACTIVITIES

While important operations in Bavaria and Wurtenburg were being conducted under the direction of the Mission Chief from the Heidelberg base, a number of investigative teams were dispatched from the Northern Advance Base, during the latter part of April and early May, 1945. There was a great deal of travel between the Heidelberg and Gottingen bases during this period, largely by jeep and command car, as both expert consultants and operational personnel shifted between bases to meet an increasing demand for target examination.

ALSOS investigative teams conducted several searches in the Harz Mountain area north of Nordhausen, during the period 27 April to 10 May 1945. Information had been obtained that valuable materials and possibly documents might be found, cached in extensive natural caves in this region. The chemistry publication collection of the German Chemical Society, considered the most valuable library of its type in the world, had been reported evacuated from Berlin in this direction. Doctor Louis Fieser, on leave from his position as head of the chemistry department at Harvard, made this project his top priority target. A number of caves and mines were searched in the vicinity of the villages of Niedersachswerfen and Rubeland. While various political documents of the Nazi Party, stores of arms and explosives and other supplies, were discovered, the chemical library was not recovered.

Other targets visited from the Northern Base during this period included personnel and institution objectives at Hamburg, Jena, Braunschweig, Clausthal, Halle, Erfurt and Essen. Major Fisher apprehended another leading German scientist in Hamburg, Doctor Harteck, of interest both to the atomic energy organization and in the general picture of German war research.

AFTER V-E DAY

With the cessation of hostilities on 8 May 1945, a review was made of ALSOS activities and target lists were revised to meet the new situation. The major objectives had already been attained but there remained certain details to be filled in to complete the pictures of several projects. Doctor Edward Sala's Proximity Fuse teams still had considerable information to fill in on German progress in this field and in counter-measure research.

The bacteriological warfare team had definitely established for our chemical warfare and medical services that the Germans were not ready to use this type of attack. However, they had also uncovered German intelligence of bacteriological activity on the part of the Japan and other nations. From the Joint Chiefs of Staff came a directive to prepare a Guided Missiles Survey. The Military Intelligence Service dispatched a team from Washington of four officers to investigate certain social, economic and political targets, and this unit was attached to ALSOS. Colonel Shaw, accompanied by two scientists were dispatched from the Office of Censorship, by its director, Mr. Byron Price, to investigate German processes in developing and detecting secret inks.--The war was officially over in Europe but the ALSOS MISSION still had a big job to do.

SOUTHERN GERMANY AND AUSTRIA

Continued study of intelligence gathered by the Mission up to May 8, V-E Day, indicated that a number of additional leads should be followed in Southern Germany and Northern Austria. During the period, 7-11 May, a party composed of Captain Matting, Doctor Robinson, Doctor Kemper and driver Nichols examined aeronautical targets in Salzburg, Airing, Oberammergau and Innsbruck. Lt. Colonel Edwin Foran, from the Office of the Quartermaster General, an expert consultant with ALSOS on synthetic fuels and shale oil production, made three trips into the Southwestern Germany area. Colonel Foran uncovered very important information on new and cheaper methods of producing fuel and lubricant oils from shale. He also succeeded in locating the leading German authority in this field, who was personally escorted back to the United States by Colonel Foran, via air. This German expert is now assisting U.S. War Department, Navy Department and Bureau of Mines experts in experiments

designed to bring large American shale deposits into profitable production, and as a petroleum conservation measure.

In the early part of May 1945, ALSOS investigators also uncovered additional caches of uranium, uranium compounds and heavy water, which had been hidden away by the Nazis in the Harz and Bavarian mountains. Members of the aeronautics team examined a new German super sonic wind tunnel at Kochel, in the Bavarian Alps, which also later proved of interest to Dr. W. E. Klemperer, engineer of the Douglas Aircraft Company assigned as a consultant, to ALSOS, who headed the Guided Missiles Survey. The BE team uncovered records of the Wehrmacht Surgeon General's Office, near Innsbruck.

ADVANCE BASE CHANGES

Increased activity in the Bavarian and Northern Austria area made it necessary to establish an operating base at Munich. Captain Natting was placed in charge of this base, located in a large residence, and operated administrative, billeting and messing services for visiting Mission teams during the period, 25 May to 30 June 1945. As all major targets of interest to ALSOS in Northern Germany had been covered by the first week of July, the Gottingen office and quarters was closed on the 13th of the month and personnel and equipment consolidated at Heidelberg.

All major administrative and liaison activities had been conducted from Mission Headquarters at Paris, from the time of liberation of the city, 25 August 1944 until after V-E Day, 8 May 1945. With Supreme Headquarters, Allied Expeditionary Force, at Versailles, being dissolved and United States Forces, European Theater, locating at Frankfurt, Germany, the Mission established a liaison office at nearby Hochst. This office, in charge of

Major Fisher, was attached to the Field Investigative Agency, Technical, of the Office of the Assistant Chief of Staff, G-2, USFET, and was established 1 July 1945.

BERLIN INVESTIGATION

During the early planning stages of ALSOS, in 1943 and early 1944, many potential Berlin targets were evaluated and listed for ultimate examination. However, as additional intelligence was collected in operations in the liberated countries and Western Germany, it became evident that the German capital would become an area of secondary interest to the high priority clients of ALSOS. As the Air Force continued to rain down high explosives on the city, many of the war research laboratories and bureaus of institutes and factories were evacuated or obliterated. After the occupation of the city by the Soviets it was expected that what was left, had been thoroughly "worked over" by Russian intelligence agencies.

There were certain missing items, however, that might still be discovered amont the rubble of Berlin. ALSOS teams had entered equally shattered cities--Cologne, Frankfurt, Essen and others, where valuable intelligence was recovered. Colonel Pash and Doctor Goudsmit headed a party of fourteen and entered Berlin on the 28 July 1945. Three weeks was spent in following investigative leads, including documents and personnel of the Kaiser Wilhelm Institute. The effort was well spent for a number of additional facts were added to the ALSOS dossiers.

The Berlin operation was the last major expedition of the Mission. Colonel Pash, Chief of Mission, returned to Paris Headquarters the second week in August 1945, and prepared for departure to the United States in order to make

arrangements for completion of Mission activities. He left the theater 29 August 1945, and radioed instructions to Paris Headquarters early in September for return of ALSOS to Military Intelligence Service, War Department, Washington, D.C.

MISSION LEAVES THEATER

Final field trips of the Mission were conducted from the Heidelberg operating base and Paris Headquarters during the month of September, 1945. Dr. W. B. Klemperer visited laboratories and experimental stations in Southern Germany and Austria where the Nazis had perfected their guides missiles and completed a very comprehensive report in this field. The major portion of the ALSOS scientific staff returned to Washington around the 15th of September. On the last day of September the last ALSOS personnel departed from Germany, the Heidelberg operational base being closed on that date.

With the completion of the Mission's field activities the latter part of September, announcement was received at Paris Headquarters of the award of the Legion of Merit to Colonel Pash. This award was made by the War Department on the recommendation of General Jacob Devers, commander of the Sixth Army Group. Announcement also was made by the theater of the award of the Bronze Star Medal to Lieut. Colonel Eckman, Lieut. Colonel Ham, Major Fisher, Captain Augustine and Lieutenants Rosenberger and Fiebig. Technical Sergeant Louis Lolli, first enlisted man assigned to the mission, was also decorated with the Bronze Star.

Following the closing of the operating base, the ALSOS liaison office at Headquarters, U. S. Forces, European Theater, was inactivated and all personnel, documents, and equipment centered at Paris Headquarters. All regularly

assigned officers were ordered back to the United States, a small group returning to the Military Intelligence Service, War Department to complete the final reports of the Mission, the balance to Reception Centers for return to civilian life. Paris Headquarters closed 25 October 1945, and all records were dispatched to the Foreign Branch, MIS, War Department. By direction of the Assistant Chief of Staff, G-2, War Department, the Mission was officially inactivated on 15 November 1945.

####

1-8 Boris Pash

[redacted]

Alson Parkinson
General

~~CONFIDENTIAL~~

REPORT BY THE SCIENTIFIC CHIEF OF THE ALSOS MISSION

Purpose of the Alsos Mission

Investigation of the state of Uranium Bomb research in Germany was the primary aim of the original Alsos Mission in Italy. When the present Scientific Chief joined the Mission, its scope had been widened considerably.

The directive of the Mission instructed it to collect intelligence on the scientific war effort of the enemy. The term, "scientific", limited the interest of the Mission to problems of research and early development. It was intended that weapons or technical apparatus in use or ready for production be covered by technical intelligence teams of the Army Service Forces, of the Navy and of the Air Forces. These teams investigated captured enemy equipment and military technical personnel, whereas the Alsos Mission was primarily interested in research laboratories and academic scientists. It is obvious that a clear distinction between "research" and "development" could not be made, but the limitation to "scientific" intelligence could be used as a guiding principle and successfully prevented overlapping with other intelligence agencies.

Limitations of Fields of Interest

Experience has shown that it was impossible to cover efficiently the whole field of scientific research in Germany. The amount of material, such as documents, personnel and laboratories, encountered during operations was so overwhelming that no intelligence agency of reasonable size

~~CONFIDENTIAL~~

could handle it all. A very thorough job could be done, however, on such scientific subjects for which there existed at home or in the field a definite demand for intelligence information. For this reason, the Alsos Mission, more or less automatically, restricted its investigations to the following subjects:

a. The Uranium Problem
b. Bacteriological Warfare
c. Organization of Enemy Scientific Research
d. Aeronautical Research
e. Proximity Fuzes
f. German Research Facilities for Guided Missiles
g. The Speer Ministry's Interest in Research
h. Chemical Research
i. Metallurgical Research
j. Shale Oil Development
k. Miscellaneous Intelligence

The Policy on Scientific Personnel

At the time the Alsos Mission was being organized, it seemed impossible to predict the problems which such a mission would encounter in its field operations. Not until the fall of Strasbourg in November 1944 did one get an insight into the work which had to be done when entering Germany. This general uncertainty explains the changes which were necessary in the choice of scientific personnel for the Mission.

The original recommendation was that the Scientific Chief would be the only permanent civilian member of the Mission. Whenever important targets were uncovered, the Office of Field Service of the Office of Scientific Research and Development would send expert scientists to the Mission for exploitation of the target. For this purpose, the Office of Field Service alerted about forty key scientists.

It soon developed that the original scheme could not be followed. Experience in France showed that the key scientists attached to the Mission

could seldom be made available at the right instant, especially during rapid advances of the Allied forces. Those key scientists who did join the Mission could not be spared long enough from their research projects at home to insure continuity of action. Moreover, several of the research project leaders were convinced that so little could be learned from a study of German war research that they were unwilling permanently to divert their experts to such investigations. As a result of this policy, only the Scientific Chief and one expert on the Uranium problem (Wardenburg) were on hand at the fall of Strasbourg. They were followed shortly by two military experts on Bacteriological Warfare (Capts. Cremartie and Henze). The exhaustive information on these two subjects, which was collected there, indicated that, if more scientists had been present, a multitude of significant scientific intelligence in other fields would have been found.

After this, at the urgent request of the Scientific Chief, a few scientists were attached to the Mission permanently (Colby, Baumann, Smyth, Kuiper). These men were responsible to the Mission only and to no other war research project at home. They were selected for their ability as all-round scientists capable of judging the importance of research work even when it did not pertain to their own fields of specialization. Of great importance in their selection was their thorough knowledge of the German language and German scientific institutions.

These special war research projects, which considered the work of sufficient value to support it by continuous representation on the Mission, were also accommodated, the principal examples being the Bacteriological Warfare Division (Capt. Cremartie et al), the Uranium Project (Wardenburg et al), the National Advisory Council on Aeronautics (Reid et al) and the Petroleum Division of the Quarter Master General (Lt. Col. Foran).

Experts attached to the Mission for a short term were accepted only when there was a very definite need for them and when their activities did not interfere with the Mission's sufficient, but not inexhaustible, means of transportation. In addition, the War Department attached to the Mission a few teams whose interests were somewhat outside the field of scientific intelligence.

The Office of Field Service, in March 1945, assigned a Deputy Scientific Chief (Kemble) and a Technical Aide (Kelly) to the Mission. The task of the former was to represent the Scientific Chief whenever he was away on field investigations.

At the request of the Scientific Chief, a few more scientists were sent over in the summer of 1945 to assist in the reading and evaluation of numerous captured German documents (Van Kloester, Beth, Helmkamp, Wannier, Van de Kamp).

A highly valuable and unique position in the Alsos Mission was held by Major R. A. Fisher. He was both a scientist and a member of the military administrative staff of Alsos. This combination proved to be extremely useful.

Whenever expedient, members of other intelligence organizations were temporarily attached to the Alsos Mission. Most of the investigation on the enemy's proximity fuse development was performed with such temporary personnel under the leadership of Dr. E. O. Salant.

The fact that the Mission had but one civilian secretary (except for the last two months when there were two) proved to be a serious handicap. It is no wonder, therefore, that the Technical Aide and the Deputy Scientific Chief complained that much of the work they were obliged to do could have been performed by an additional competent secretary.

The War Department attached several clerks to the Mission who performed a splendid job in typing reports and memoranda. Those who were well-qualified as secretaries were not available to the scientific staff, as they were needed for the large amount of military administration necessitated by the Mission's extensive activities. The few who might have been useful as secretaries, because they knew German, were sent into the field to drive vehicles and to act as interpreters for those members of the Mission who lacked knowledge of the German language.

Toward the end of activities in Europe, two competent German translators were finally sent to the Mission from the War Department.

Major Scientific Personnel

The scientific personnel of the Alsos Mission changed frequently. Some members were attached only for short periods for special investigations. The following list includes, therefore, only those whose major activities in the ETO were for Alsos:

GOUDSMIT	Scientific Chief of Mission. Field Work on Uranium Project. Organization of German Science. Speer Ministry.
FISHER, Maj.	Field Work on Uranium Project. Organization of German Science. Liaison with F.I.A.T.
KEMBLE	Deputy Scientific Chief of Mission. Evaluation of German Documents.
COLBY	Field Work on Uranium Project. Organization of German Science. Speer Ministry and other subjects.
BAUMANN	Field Work on Chemistry and other subjects.
SMYTH	Field Work on Physics, Chemistry and other subjects.
WARDENBURG	Field Work on Uranium Project and other subjects.
LANE	Field Work on Uranium Project.

~~CONFIDENTIAL~~ DECLASSIFIED (see back of document) date 12/27/87

HOGNESS	Field Work on Uranium Project
CROMARTIE, Capt. HEMKE, Capt. BARNES, Major (Br) ADAM, Major (Br) HOVER, Lt., USN	Field Work on Bacteriological Warfare
REID ROBINSON KEMPER REERT BOGERT, Col.	Field Work on Aeronautical Research
KLEMPERER	Field Work on Guided Missile Research
SALANT TOLLES	Field Work on Proximity Fuzes
FORAN, Lt. Col.	Field Work on Shale Oil Development
KUIPER	Field Work on Physics, Electronics & Astronomy
VAN KLOOSTER VAN DE KAMP BETH WANNIER SENIOR	Evaluation of German Documents & Some Field Work
HOYES SHERWOOD FIESER HELMKAMP CHITTICK, Col.	Field Work on Chemistry & Chemical Engineering
RICHTER PIERCE SHAW, Col.	Field Work on Secret Communication Devices
HICKMAN	Field Work on V-1 Launching
BATES HOYT	Field Work on Metallurgy
RABUER, Lt. Col. CUTTING ONBERG	Field Work in France on Subjects of Interest to the Signal Corps

~~CONFIDENTIAL~~

~~CONFIDENTIAL~~

BRODE		Field Work on Chemistry & Infrared Devices
JOHNSON KLEARNEY CLARK, Major	)	Field Work on Ballistics Research
MAY BERSE	)	Field Work on P.W. Psychology
KELLY		Technical Aide
CUNNINGHAM, Mrs. DOHAN, Miss MILNE, Miss	)	Secretaries

Relations Between the Scientific and Military Groups

Almost from the very beginning of operations in France, a clear understanding was reached concerning the division of responsibility between the military and the scientific groups of the Alsos Mission.

The task of the scientists was to analyse and evaluate all available material which led to personalities and locations of interest to scientific intelligence. The task of the military was to plan and execute operations, to secure the personalities and locations indicated by the scientific staff and to enable the scientists to investigate these targets.

This arrangement worked out perfectly. Never did the military group question the judgment of the scientific group as to the importance of a target, and never did they fail to execute the operations as needed and planned. It was essential, however, that the Military Chief (Col. B. T. Pash) be given, before each operation, as complete a picture of the scientific interests as possible. A mere description and enumeration of the targets would have been insufficient. On the other hand, the scientists were sometimes handicapped by not always being fully informed of military advances, as the relative importance of targets often depended upon the order in which they might be captured.

~~CONFIDENTIAL~~

Through the use of an adequate number of vehicles which were kept in excellent running condition, the Mission was absolutely mobile at all times. The Mission requisitioned its own field bases with billeting and messing facilities in Strasbourg, Aachen, Heidelberg, Göttingen and Munich. This independence greatly facilitated the operations of the Mission. It gave its members a freedom of movement which would have been impossible otherwise. It eliminated numerous administrative formalities, which would have caused damaging delays in various field investigations. That the field facilities selected for the Alsos Mission were always the best available is obvious, since Col. Pash and his men were always the first on the scene.

Communications and Direction of the Mission

One of the most serious handicaps and disappointments was the lack of adequate and rapid communication between field teams, bases and headquarters of the Alsos Mission. Telephone communications could not be relied upon, especially during the rapid advances of the Allied forces. Radio or telegraph communications were often ineffective. Not until the situation in a region had become stationary did communication facilities improve. At that time, their urgency in connection with Alsos operations was no longer existent. Often a field team would be without contact with Alsos Headquarters for a week or more.

Under these circumstances, it was impossible for the Scientific Chief to direct the field teams in the details of their operations. Only the planning of a trip could be directed and supervised, but in the investigations themselves, the scientific members often had to make their own independent decisions. Nearly all of the members of the

Mission were highly competent to take such responsibility.

The difficulties in communications were relieved partially by the fact that the Mission had enough vehicles to establish its own courier service between Headquarters and advance bases. Moreover, field trips during the period of actual combat were planned by the military to include enough vehicles to make courier service possible. In several cases, this was the only certain way of conveying an urgent message.

The communications difficulties of the Alsos Mission could have been overcome almost completely if the Mission had had at its disposal one airplane with crew. This would have permitted almost daily contact with the advance bases and would have considerably improved the all-over coordination of Alsos activities. The flying time between Paris and Heidelberg or between Paris and Göttingen is about two hours - between Heidelberg and Göttingen about one hour. By jeep, at the time of heavy troop movements and difficult bridge crossings, these same trajects took about eleven hours and five hours, respectively.

On a few emergency occasions, members of the Alsos Mission were able to obtain unscheduled air transportation as a result of personal and informal relations with members of USSTAF. At times, it was possible to fly on courier or hospital planes. Later on, when the urgency had long subsided, Alsos members made frequent use of the various ATC shuttle services.

Communications with Washington were also often inadequate, but for different reasons. The situations encountered in the operations varied so often and were frequently so unexpected that it was impossible to convey by means of simple radiograms the problems encountered. Occasional

instructions received from the Office of Scientific Research and Development or from the War Department in connection with the activities of the Mission were often entirely unrealistic and could not be followed up without seriously hampering the planned operations. This difficulty could have been mitigated considerably if a short, weekly, teletype conference between Paris and Frankfurt and Washington could have been arranged. In spite of urgent requests from the Scientific Chief, such facilities were not made available. Several misunderstandings could have been avoided if this plan had succeeded.

In addition to the Chief of Mission (Colonel B. T. Pash), the administrative details of the Mission were admirably handled by Lt. Colonel G. E. Eckman and by Lt. Colonel R. C. Ham. They were successful in reducing "red tape" to a bare minimum and in otherwise facilitating the work of the scientists.

Relations between Alsos Scientists and Other Intelligence Groups

The report of the Chief of Mission relates the official connections between the Alsos Mission and other intelligence agencies. As far as scientific activities were concerned, informal relations between Alsos scientists and those of other organizations were of primary importance.

Originally, the Alsos Mission included several representatives of the U. S. Navy, who later were absorbed by the Naval Technical Mission in Europe. For about six months, the Paris office of the Alsos Mission was at the U. S. Naval Headquarters in Paris. Whenever they were in Paris, all civilian members and most of the officers of the Alsos Mission were billeted at the Navy hotel. It is obvious that very cordial relations existed, therefore, between scientific and technical investigators of the Navy and of Alsos and that there was an informal and complete

exchange of information.

Similar informal relations existed between Alsos and scientists attached to USSTAF, Ordnance, etc. Close cooperation between Alsos and O.S.S. was established in the field. All scientific data collected by O.S.S. were put at the disposal of the Alsos Mission, and O.S.S. was especially successful in assisting the Proximity Fuze project of the Mission.

The Scientific Chief was a member of the Scientific Intelligence Advisory Section of SHAEF, which was later transformed into the Scientific Branch of F.I.A.T., U. S. Group CC. In this manner, the Alsos Mission kept in touch with the all-over theater policy on scientific and technical intelligence. A permanent Alsos liaison office was later established at F.I.A.T., which greatly facilitated Alsos operations after VE Day.

The Alsos Mission was directly represented on the Combined Intelligence Priorities Committee, but when this committee was changed into C.I.O.S., the Mission's representation was merely indirect. Close cooperation with C.I.O.S. intelligence teams existed in the field, and the Alsos Mission complied with the rules laid down by them.

Whereas C.I.O.S. originally appeared to have many interests overlapping those of Alsos, the facts soon proved that C.I.O.S. teams were primarily concentrating on industrial and technical intelligence. Reports on German science submitted, according to regulations, to C.I.O.S. by Alsos were not reproduced and distributed by this organization because of lack of interest. The claim of C.I.O.S. that one of their main successes was the capture of the files of the German War Research organization, the so-called "Osenberg Files", was entirely without foundation. After the fall of Strasbourg, these files were systematically searched for

and discovered by the Alsos Mission. They were taken over by C.I.O.S. but never adequately exploited or analysed, nor were the Alsos reports referring to this organization distributed by C.I.O.S. In fact, the follow-up by Alsos led to the discovery in the same place of the more important files of the president of the German Research Council and their correspondence with the Gestapo. These had been entirely overlooked by C.I.O.S. These files have been thoroughly discussed in various Alsos Reports.

The Principal Method Used by Alsos Scientists

The method used by Alsos scientists to track down intelligence was very simple in principle. It consisted in concentrating all its efforts on the collection of two types of information, namely,

a. up-to-date and reliable information about the relative importance of enemy scientists and their research institutions or organizations;

b. as precise information as possible about the location of scientists and research laboratories.

Though this would seem to be the logical procedure, the impression was gathered that some of the other intelligence groups did not follow a systematic search but rather stumbled upon their targets by mere chance.

It is obvious that the above given rules are essential if coverage is to be made by a small, mobile organization like the Alsos Mission. Method "a" has the great advantage that it reduces considerably the number of targets to be investigated. It is also obvious that this method automatically steers the investigation toward subjects for which there exists a decided intelligence interest. It prevents a mission from merely collecting indiscriminately a multitude of irrelevant bits of

information, a mass of enemy documents and countless reports on the interrogation of enemy scientists.

The actual application of these rules is not as simple as it may seem and requires some practical experience. This is one of the reasons why permanent members of the Alsos Mission were more efficient in getting results than short-term key scientists.

Most of the preliminary work was done in Washington under the direction of Dr. Colby before the Alsos Mission entered France. The work consisted in preparing a list of scientists and institutions in continental Europe, an evaluation of their importance and an estimate of the reliability of this information. Much time was devoted to verifying these data through interviews with persons acquainted with the targets. It must be noted that no information on scientific targets was made available through intelligence channels, and that all information was, therefore, based upon pre-war knowledge.

The liberation of Paris furnished the Alsos Mission some up-to-date information. Unfortunately, most French scientists had either avoided contact with the Germans or did not possess their confidence. The result was that intelligence on German targets collected in Paris was wholly fragmentary. For example, the Alsos Mission obtained the names of two Germans who held key positions in the Uranium project and whose importance could not have been guessed, inasmuch as they were known to be inferior scientists. Documents found in German offices in Paris furnished current revisions of addresses.

A 1944 catalog of the University of Strasbourg yielded the unexpected information that some of the most important personnel targets were located

there, and it gave some account of their activities. This discovery was responsible for concentrating the attention of the Mission on that city.

Every new place of importance entered by the Mission was searched for new information on German scientific activities. By far the greatest initial yield was obtained at the University of Strasbourg in November 1944. Correspondence found there revealed several recent evacuation addresses of important research institutes. University catalogs, together with those available in Paris libraries, gave the latest information on personalities. A careful study of documents, some of them highly technical, others in veiled language, several in German shorthand, gave an authentic picture of the Uranium research program as of the summer of 1944.

It is important to point out in what respect the methods for collecting scientific intelligence differ from the more usual military intelligence tasks. The principal feature is to make use of the fact that scientists in a given field are closely linked together. It is often quite sufficient to contact one or two scientists to obtain complete information about all their colleagues, either through interrogation or, better still, from their documents. However, only a scientist can judge the relative importance of enemy scientists, the value of their research papers and the completeness of the information obtained. In addition to the research papers, informal notes and correspondence between scientists contain much information which would escape the attention of non-scientific intelligence agents. Very important intelligence was collected in this manner at Strasbourg where innocent correspondence and lecture notes gave an almost complete picture of the activities of the Uranium Group in Germany.

It is obvious that the common rules for tracking down individuals,

such as "cherches la femme" or through a physical description, are inefficient compared to the above method. A communication from the Manhattan District Engineers suggested that a German scientist be contacted and gave complete physical details, including "a polyp in his right nostril" and "left atrophied testicle", instead of his scientific achievements. This, of course, is not the way to find such a man; moreover, this individual was totally insignificant compared with other scientists who were more easily contacted.

Occasionally, however, ordinary detective methods must be applied, too, in the search for scientific intelligence. In Paris, the Alsos Mission collected valuable clues from desk calendars, from lists of phone calls and from a doorman's check list. A piece of carbon paper revealed the names and addresses of all French employees of a German scientific spy group which functioned in Paris during the occupation. A list of registered mail disclosed the address of an important target. A receipt revealed the secret address of a German laboratory working on the Uranium problem. A streetcar ticket and hotel bills found among the papers of a German chemist, who was discovered by Alsos in Belgium in October 1944, indicated that he had visited Berlin and other places of interest for the Uranium project only a month earlier. This type of clue was primarily of importance before the first real German scientific institution was captured in Strasbourg. After that, the leads were almost exclusively of a scientific nature.

Scientific Results Obtained by the Alsos Mission

a. The Uranium Project.

The Alsos Mission was the only intelligence team authorized to investigate for United States and British interests the German progress

on the Atom Bomb. Documents found at Strasbourg indicated that the enemy had made practically no progress in this field, though it had the highest priority of all scientific research projects. The Alsos Mission located all the centers of Uranium research in Germany. The laboratories were investigated and key personnel detained and questioned. The enemy tried in vain to hide essential materials and research reports. They were all recovered by the Alsos Mission. It is certain that complete research data and all key scientists fell into the hands of the Alsos Mission.

The evaluation of the intelligence indicated that the Germans believed that they were far ahead of American development in this field. In reality, the Germans, though they had started sooner, were far behind. They had given up altogether the idea of making a bomb and were concentrating their efforts on constructing an energy producing machine, which they called a "Uranium Burner". At the end of the war, they had not even succeeded in constructing a self-sustaining chain reaction or "pile". Nevertheless, they believed their progress to be so important that they offered to assist United States scientists in their efforts to harness atomic energy. They were convinced that their work would help Germany to dominate the world of science even though the military struggle had been lost. Not until the news of the Atomic Bomb reached them on August 7, 1945, did German scientists realize that they had also lost the war of physics.

b. Bacteriological Warfare

On this subject, too, the Alsos Mission was the only authorized intelligence team. British medical officers were attached to the Alsos Mission for this purpose. Again, documents found in Strasbourg gave vital information in connection with developments in Germany. The B.W. team of

the Alsos Mission contacted all key scientists who were connected with bacteriological research in Germany. An officer of the German medical corps, who was in charge of all intelligence connected with B.W., was tracked down and captured. His files were recovered intact and contained a wealth of intelligence information.

The evaluation of the collected intelligence indicated that the Germans had primarily done defensive B.W. research. More extensive research was planned but too late to be realized.

c. Organization of German Scientific Research

Documents found at Strasbourg led to the location near Northeim (Hannover) of one of the principal offices of the Reichsforschungsrat (RFR), or State Research Council. As soon as this place in northern Germany became available, Alsos Mission military and scientific personnel secured these offices - complete with documents and staff. These were removed by the Scientific Intelligence Advisory Section of SHAEF and taken to Paris for further exploitation. A later checkup by Alsos members disclosed that files of the head office of the RFR in Berlin were also stored there and that important correspondence with the Gestapo was buried nearby. Both sets of files were recovered and analyzed by Alsos.

These documents, together with information found elsewhere, furnished a comprehensive picture of war research in Germany. German war research was severely handicapped for a multitude of reasons. Academic scientists did not have the confidence of the Government and of the Armed Forces. Research was originally not, or at best insufficiently, organized. Key administrative positions were held by incompetent men chosen for their loyalty to the Nazi Party. Severe competition and jealousies between research groups impeded progress. An unnatural distinction was made between

"research" and "development". Projects assigned to academic scientists could not be considered "war" research. Industrial scientists working on war projects were never allowed to see their products in actual military use. This held true for the groups of scientists assigned directly to the Army or the Navy.

The only really successful research program was the aeronautical research organized on a large scale by the German Air Force. This research organization maintained as much as possible its independence from other agencies, such as the RFR and the Speer Ministry. The research establishments which were sponsored or supported by the German Air Force excelled in equipment, in facilities and in the competence of their personnel.

Some of the research done by the German Navy research groups was also highly successful, notably problems of underwater propulsion using hydrogen peroxide.

Various industrial research laboratories, which succeeded in maintaining some independence, produced valuable results. There was, however, a definite lack of comprehensive coordination; attempts to remedy this were made too late. There was no central organization with men strong enough to stop the many wasteful parallel developments.

As academic scientists were not engaged in war research, they tried to boost pure scientific research in order to dominate the scientific post-war world. A few thousand scientists, who had originally been drafted, were gradually released to do war research, but most of them found their way back into academic science. The president of the German Physical Society lectured on numerous occasions about the plight of German physics as compared with its development in England and America.

A Gestapo report complained that, of the approximately 800 research projects sponsored by the RFR in 1943, about 70% were on forestry and agriculture. Only 25 were on physics, and only one of these could be considered a war research problem.

The composite picture one obtains of the German war research organization is indeed a sad one. Aeronautical science was the only type of research which was successfully pursued and supported fully. In other fields, most of Germany's competent scientists in academic or industrial laboratories were not exploited to their full value. There was no strong character in a key position able to coordinate and guide the German research program. Those in charge were totally incompetent as scientists and as administrators. Some of the excellent products of industrial research laboratories never came into use. It was too late when improvements were finally contemplated in the coordination of a few research and development projects, such as the work on guided missiles and on proximity fuzes.

d. Aeronautical Research

The German Aeronautical Research was on such a large scale and so extensive that it was impossible to restrict the investigation to a few important targets only. Alsos members were the first to visit the key aeronautical research establishments at Göttingen, Braunschweig and Kochel. The N.A.C.A. representatives on the Alsos Mission would have been unable to cover this enormous field. Fortunately, all other technical intelligence agencies were obviously also interested in these highly important targets. The Alsos Mission restricted itself chiefly to the collection of information on airplane frames and airplane engines. It will be a long time before the story of German aeronautical research will be recorded. The Alsos Mission captured numerous important documents which are still being studied.

e. Proximity Fuzes

All investigations on German proximity fuze development and intelligence were coordinated by one of the members of the Alsos Mission, a key representative of this project in the United States. Material bearing upon this subject found by other British and American intelligence teams was pooled and their personnel temporarily attached to the Alsos Mission whenever expedient. On this project, some outstanding help was given the Alsos Mission by O.S.S. In this way, it was possible to obtain an integrated view of proximity fuze research and development in Germany.

The results indicate that nothing like the American proximity fuze was developed by the Germans. No small, rugged, radio tubes, which could withstand high accelerations, were known to them. They were aware of the American proximity fuzes only after they had been used, but they remained completely in the dark about the principles of their construction. The Germans had, however, developed a few superior accoustical proximity fuzes for use in ground-to-air or air-to-air rockets. They seemed to be simple in construction and could probably not be jammed. They were about to go into production when the last phases of the war made this impossible.

f. Research Facilities for Guided Missiles

Information on the construction of guided missiles was collected by various intelligence agencies. A catalog of these missiles has, for instance, been distributed as a report of the Naval Technical Mission in Europe. The Alsos Mission was asked to make a survey of the research facilities which the Germans used for their Guided Missile development. This assignment was given to one member of the Alsos Mission who was unusually well-qualified for this investigation. Exhaustive reports on all these

facilities (i.e., wind tunnels, proving grounds, laboratories for fuel research and control systems) have been distributed by the Alsos Mission. The facilities at the disposal of German scientists and engineers were more than adequate, and some outstanding results were obtained. The homing device program was one of the projects on which "research" and "development" were coordinated by one and the same man, the highly competent engineer, Dr. F. Gladenbeck, assisted by an excellent staff. It so happened that Gladenbeck was in charge of research on homing devices under the RFR and, at the same time, was head of the special committee on the development of these missiles under Speer, the Minister of Armaments and Production. Some very interesting infrared homing devices were developed. A typical disagreement arose as to whether Gladenbeck's group was responsible for homing devices only or whether it could also coordinate research on missiles with remote control!

g. The Speer Ministry's Interest in Research

In March 1945, a special committee of C.I.O.S., code name "Accommodation Panel", was created for the purpose of verifying and expanding the information that the Speer Ministry had, by a decree of June 1944, limited German research to such subjects as were of immediate importance to the war effort. The Alsos Mission was instructed by the War Department to represent its interests on this committee. The intelligence was based upon a decree by Minister Speer, printed in the "restricted" publication of the Ministry of Armament and Production, a copy of which had come to the attention of C.I.O.S. The problem was to discover just which research projects were to continue, as this detail was not divulged in the decree itself.

The evidence on German research organization found by the Alsos

Mission in November 1944 in Strasbourg indicated that the assumptions of the "Accommodation Panel" were likely to be incorrect. The Speer Ministry dealt only with development of weapons and equipment. Research was the exclusive concern of the State Research Council (RFR) under Goering, insofar as it had not been monopolized by the Air Force, the German Navy or Army Ordnance..

The Alsos Mission soon uncovered a set of the Speer Ministry's "restricted" journal which was complete up until January 1945. An investigation of the Ministry's branch offices (Rüstungs Kommandos) in Strasbourg and Saarbrücken and further secret documents on the RFR discovered at the Universities of Aachen, Bonn and Cologne, confirmed the opinion of the Alsos scientists. The Speer Ministry's "concentration" decree covered only types of aircraft, tanks, weapons, etc. but no research projects.

Minister Speer had indeed used the words "research and development" (Forschung und Entwicklung) in his directives. The RFR files found later by Alsos disclosed that this phraseology had caused a violent protest from RFR officials.

Research projects continued without curtailment until Hitler's decree of January 1945 on the so-called "Notprogramm" ("emergency", or "distress", program), also called "Führerprogramm". At that time representatives of the RFR in charge of various research programs began to revise their list of projects in order to eliminate the least important ones. The war was over before any action could be taken.

h. Chemical Research

Members of the Alsos Mission contacted a number of outstanding German chemists who were outwardly friendly but who succeeded at first

in keeping back much relevant intelligence. Some information on research in pure chemistry and bio-chemistry, which appeared to be on a high level, was obtained. It was much later, after the Mission's investigation of Berlin targets, that a set of secret publications was discovered containing valuable research papers on applied chemistry, originating mainly from the so-called "Four Year Plan Institutes" and from I. G. Farben laboratories.

Detailed information on the organization of chemical research was obtained from various sources and reported in detail.

F.I.A.T. had rounded up the I. G. Farben experts on war gases, and a member of the Alsos Mission collected from them pertinent information about the testing of toxicity of the very potent new German war gases.

i. Metallurgical Research

A complete survey of metallurgical research was made by experts in this field attached to the Alsos Mission. The results indicated that no significent advances were made by German metallurgists, though certain details of their investigations proved to be interesting and highly instructive.

j. Shale Oil Development

A representative of the Quartermaster's Corps was attached to the Alsos Mission to investigate progress made in the extraction of oil shales. This investigation proved to be very successful, as entirely new and efficient methods of extraction, originating with French engineers, were uncovered. These methods were being applied in Germany on a large scale. All important documents and key German personnel fell into the hands of the Alsos Mission and have been thoroughly exploited.

k. Miscellaneous Intelligence

In addition to the results described above, the Alsos Mission collected a variety of intelligence on other subjects. A study of the

Ger-
French and list of Alsos reports indicates that numerous bits of miscellaneous information were obtained, especially before the Mission entered Germany. A great many of these reports contain merely new information on targets, would make an interesting study. the importance of which could not be judged at the time. Other reports, in general, rather cover subjects in which Alsos had only a passing interest, and which were investigated more fully by other intelligence agencies. Examples of this are excellent reports by Nickman regarding the launching of V-1, by Sherwood and Lt. Aldrich, USN, on the secret oxygen plant at Liege, and several others.

The Alsos Mission also made a preliminary investigation of Himmler's own pseudo-scientific academy, the "Ahnenerbe", which, during the war, sponsored horrible medical experiments in concentration camps.

While working on scientific intelligence, members of the Alsos Mission occasionally uncovered information of interest to other branches of intelligence or to the Counter-Intelligence Corps. Documents revealing French-German black market deals in Radium were turned over to the authorities. Alsos discovered the existence during the occupation of a German scientific intelligence organization in Paris. Using Dutch and French scientists and engineers as a front, it was really operated by the German military intelligence. French and Dutch participants were apprehended and some of the Germans were later tracked down by Alsos in Germany. The relevant facts and documents were turned over to the French and Dutch authorities for action.

Some of the sideline cases encountered by the Alsos Mission would make an interesting story, but they do not pertain to scientific intelligence and were, in general, rather unimportant. Information about

AUTHORITY: MEMORANDUM FOR Chief, Office of Industrial Security
Subject: Contract Administration Services
Defense Supply Agency (13 Aug 73)
Hoover Institute Declassification Program
Reviewer:

AUTHORITY: MEMORANDUM FOR Chief, Office of Industrial Security
Subject: Contract Administration Services
Defense Supply Agency (13 Aug 73)
Hoover Institute Declassification Program
Reviewer:

the political attitude of several German scientists has also come into the hands of Alsos.

Conclusion

It is the opinion of the Scientific Chief that the Mission has been highly successful. It has taught us lessons in intelligence procedure which may be of great value in peacetime, too. This fact is of greater importance than the actual scientific information which was collected, the bulk of which was negative.

Only the method used by the Alsos Mission could have revealed, immediately after the fall of Strasbourg, that no threat of a German Atom Bomb existed. From a military point of view, this was the most important result obtained by the Mission.

The Alsos method, it must be emphasized, succeeded only because of the close cooperation and mutual trust of the military and the scientists. For all members, this Mission has been a unique undertaking, giving the inner satisfaction of having actively contributed to the success of the Allied cause.

S. A. GOUDSMIT
Scientific Chief
Alsos Mission

Washington, D.C.
7 December 1945